

TSCA SUPPLEMENTAL PCB CHARACTERIZATION REPORT COMMERCIAL FOUNDRY COMPANIES 326 SOUTH STREET NEW BRITAIN, CONNECTICUT

# **PREPARED FOR:**

Federal Deposit Insurance Corporation, in its capacity as Receiver of Citytrust Bank, 3701 N. Fairfax Drive, Room 7034 Arlington, VA 22203

#### PREPARED BY:

GZA GeoEnvironmental, Inc. 655 Winding Brook Drive, Suite 402 Glastonbury, CT 06033

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GZA GeoEnvironmental, Inc. Engineers and Scientists

February 10, 2015 File No. 05.0043369.83 & 05.0043369.84

Federal Deposit Insurance Corporation as Receiver for Citytrust Bank 3701 N. Fairfax Drive, Room 7034 Arlington, VA 22203

GZN

Attention: Ms. Ann V. Kraus

Re: TSCA Supplemental PCB Characterization Report

**Commercial Foundry Companies** 

326 South Street, New Britain, Connecticut

Dear Ms. Kraus:

655 Winding Brook Drive, Suite 402 Glastonbury, CT 06033 860-286-8900 (phone) 860-652-8590 (fax) www.gza.com

In accordance with our contracts with Commercial Foundry Companies, dated December 6, 2012 (Revised December 12, 2012) and June 24, 2013, GZA GeoEnvironmental, Inc. (GZA) performed supplemental characterization activities at the above referenced property (Site) to further assess the extent of polychlorinated biphenyls (PCBs) in ceilings, concrete walls, floors and below-floor soils throughout Site building and around stormwater drain lines north and south of the building. The source of the PCBs is believed to be a release of heat transfer oils from an embossing machine used by a previous building operator prior to occupancy of the Site by the Commercial Foundry Companies (CFC). GZA notes supplemental characterization work has been performed to address both the U.S. EPA Toxic Substance Control Act (TSCA) regulations and the Connecticut Department of Energy and Environmental Protection (CT DEEP) Transfer Act requirements. Because the two sets of regulations overlap but are not identical, a separate report for the Transfer Act investigation will be prepared for submittal to CTDEEP. GZA prepared this report in accordance with the Terms and Conditions of our contract and the Limitations in Appendix A.

We appreciate the opportunity to work with you on this project. Should you have any questions, please contact the undersigned.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Anthony Trani

Scientist

Kathleen A. Cyr, LEP

Consultant/Reviewer

James T. Hutton, LEP Senior Project Manager

Gary I Cluen LEP

Principal

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#### 1.0 INTRODUCTION

In accordance with our contracts with Commercial Foundry Companies (CFC), dated December 6, 2012 (Revised December 12, 2012) and June 24, 2013, GZA GeoEnvironmental, Inc. (GZA) performed supplemental polychlorinated biphenyls (PCB) characterization of building materials and soils at the CFC property located at 326 South Street, New Britain, Connecticut (Site). Figure 1 is a Site locus map showing the location of the subject property on a U.S.G.S. 7.5 minute quadrangle base map that indicates topography in the Site vicinity. The area surrounding the Site is developed with commercial businesses to the west and south and single-family and multi-family residences to the north and east. This report is subject to the Terms and Conditions of our contract and the Limitations in Appendix A.



The objective of our study was to complete Site investigation in a manner consistent with U.S. Environmental Protection Agency (EPA) Toxic Substances Control Act (TSCA) regulations for characterization of porous surfaces and soil impacted with PCBs as found in Title 40 Part 761 of the Code of Federal Regulations (40 CFR Part 761). Characterization work conducted in December 2012, January 2013, and July 2013 included the following tasks:

- Collecting 27 concrete wall samples at 4-feet above the floor and 10 concrete wall samples at 10-feet and 15-feet above the floor to assess walls for PCB impacts from spilled, splashed or misted machine oils;
- Collecting 20 ceiling wipe samples to assess ceilings for PCB impacts from splashed or misted machine oils;
- Collecting 152 concrete floor chip samples at 76 locations within the Site building;
- Excavating 14 test pits, advancing 31 soil borings and collecting soil samples to assess the extent of soils with PCBs above 1 milligrams per kilogram (mg/Kg);
- Analyzing 50 concrete wall, 15 ceiling wipe, 107 concrete floor and 74 soil samples for PCBs using appropriate laboratory analysis. These totals include duplicate samples;
- Analyzing 7 Orangeburg pipe samples and one sediment sample for PCBs using appropriate laboratory analysis. These totals include duplicate samples;
- Preparing this report documenting the work performed and our findings and conclusions regarding the extent of PCB impacts in building materials and soils at the Site.

We note that assessment of the Site for compliance with the Connecticut Department of Energy and Environmental Protection (CT DEEP) Remediation Standard Regulations (RSRs) under the Property Transfer Act (PTA) remains in process. This report focuses on PCB impacts inside the Site building, below the floors of the Site building and near exterior stormwater piping that must be addressed under TSCA and does not address the range of Site assessment needed to fully comply with PTA requirements. The additional PTA related Site

investigation activities are being addressed in a separate report. We also note that this report is not a Remedial Action Plan (RAP). A RAP that contemplates demolition of the CFC portion of the building, remediation of PCB-impacted building materials as necessary in the Atlas portion of the remaining building and soil remediation (for PCBs found on the CFC portion of the property) will be prepared in compliance with TSCA and other applicable legal requirements.

#### 2.0 BACKGROUND



This section provides an overview of the Site and its current and past usage according to information obtained during GZA's interviews with CFC and long term Site tenants/operators. Much of the information presented below was previously submitted to CT DEEP in GZA's report titled "Limited Phase I Update and Phase II Environmental Site Assessment Report" (2006 Phase I/II), dated February 14, 2006. We note that the GZA 2006 Phase I/II Report was also submitted to EPA in June 2009 as part of a Remedial Action Plan for PCB impacted soils found on the exterior of the Site.

#### 2.1 SITE DESCRIPTION

The Site appears to have historically been six individual parcels of land that were joined and are now occupied by a single-story, approximately 44,960-square foot industrial building. Five of the parcels were acquired by G&T Manufacturing (later known as Tyco Coating Products) between 1947 and 1953. The sixth parcel was acquired by John Hancock Mutual Life Insurance Company in 1959 from the Hartford National Bank and Trust Company. The Site was consolidated by South Street Realty Corporation into a single parcel in 1959. The original buildings at the Site were likely constructed in the late 1940s and the 326 South Street address was first listed in city directories in 1949. The 5 East Street address (tenant space) was first listed in 1951. The buildings were connected sometime before 1965 based on aerial photography. Additions were constructed on the northern side of the 5 East Street building in ±1973 and on the eastern side of the 326 South Street building in ±1973 to 1977. A final addition was constructed on the northwest side of the 5 East Street building in 2002.

For a more detailed Site description, the reader is referred to GZA's 2006 Phase I/II report. A Site Plan showing previous exterior remediation areas for PCB impacted soils and the current interior study area is provided as Figure 2, attached.

#### 2.2 SURROUNDING PROPERTY USE

The land use in the vicinity of the Site is mixed industrial, commercial and residential. Adjacent properties to the south are industrial. The property to the west is commercial (a restaurant). Adjacent and vicinity properties to the north and east are residential single-family and multi-family homes.

#### 2.3 SITE HISTORY & OPERATIONS

The Site has been used for commercial/industrial purposes dating back to the 1940s. The Site is currently occupied by CFC (central and eastern portion of the Site building), which had manufactured aluminum and bronze castings from 1993 until July 2014 (at which time the foundry operations ceased), and by Atlas Metalizing (western portion of the Site building),

which applies metalized coatings to various types of films and laminates (Atlas operations are on-going as of the date this report was issued). The Site is subject to the Connecticut Transfer Act as a result of the historic generation of hazardous waste by the operations that pre-date CFC's occupancy (causing the Site to be an Establishment). A November 16, 1993 transfer of the establishment was completed under the PTA.

# 2.4 PRIOR GZA REPORTS



Below we have summarized data from previously submitted documents that describe historical PCB characterization at the Site. The documents identified in this Section should be reviewed in conjunction with the newest data provided in this PCB characterization report in order to understand the extent of PCB characterization testing completed to date for the Site.

# Interior PCB Characterization Report, March 2011

GZA collected 44 wall samples, 46 concrete chip samples and advanced 46 borings within the Cutting & Grinding Room (Area 12) and the Oil Storage Room (Area 11) for PCB analysis to assess a suspected release area for PCB impacts relating to the former embossing machine which had been located in the Cutting & Grinding Room (Area 12).

Chip samples (paint and minor amounts of underlying concrete) from the Oil Storage Room (Area 11) walls contained PCBs at concentrations between 7.8 and 42 mg/Kg. Samples from the Cutting & Grinding Room (Area 12) walls contained PCBs at concentrations between 5.4 and 760 mg/Kg. The highest PCB results were found along the east wall of the Cutting & Grinding Room (Area 12) in the same vicinity as the highest PCB concentrations in floor and below-floor soil samples (see below).

Concrete floor PCB concentrations in the Oil Storage Room (Area 11) were above 1 mg/Kg in four of eight samples collected from the 0 to 0.5 inch interval. None of the concrete floor samples from 0.5 to 1.0 inches in the Oil Storage Room (Area 11) contained PCBs above 1 mg/Kg. Concrete floor PCB concentrations in the Cutting & Grinding Room (Area 12) were above 1 mg/Kg except for the sample at location 15 in the northwest portion of this room. The highest concentrations of PCBs in Cutting & Grinding Room (Area 12) concrete floor samples were detected along the east wall of the Cutting & Grinding Room (Area 12) at concentrations as high as 2,200 mg/Kg (sample S-25-C2). In general, PCB concentrations decreased from the 0 to 0.5 inch sample depth to the 0.5 to 1.0 inch sample depth but several of the deeper concrete samples in the Cutting & Grinding Room (Area 12) were also above 1 mg/Kg PCBs.

Laboratory analysis of sub-slab soils indicated that PCBs migrated to sub-slab soils, primarily along the east wall of the Cutting & Grinding Room (Area 12). Soils PCB concentrations up to 280 mg/Kg were detected in soil samples from below the floor near the east wall. These soil samples were collected from soil borings that were completed with a Geoprobe sampling rig.

GZA noted further characterization was necessary prior to development of a remedial plan for concrete and soils in and around the Cutting & Grinding Room (Area 12)/Oil Storage Room (Area 11) because the extent of PCBs in concrete walls (or paint on

the walls) was not yet defined for rooms outside the Cutting & Grinding Room (Area 12)/Oil Storage Room (Area 11).

<u>March 2011 Wipe and Indoor Air Data (which was included in Appendix D and summarized in Section 3.3 of the GZA October 2012 Limited Source Removal Summary Report)</u>



In March 2011, CFC requested GZA collect wipe samples and indoor air samples to assess whether PCBs identified in concrete floors and walls in the Cutting & Grinding Room (Area 12) could potentially impact Site workers. GZA collected 8 surface wipe samples and 8 indoor air samples to assess interior conditions as they relate to worker safety. Samples were submitted to Contest Analytical Laboratory of East Longmeadow, MA for analysis. Laboratory results for the samples collected are included in Appendix C.

Indoor air samples did not contain PCBs and laboratory detection limits were between 0.050 and 0.970 micrograms per cubic meters of air ( $\mu g/m^3$ ). NIOSH recommended exposure limits (on a time weighted average) are 1.0  $\mu g/m^3$  for Aroclor 1242 and 1.0  $\mu g/m^3$  for Aroclor 1254 while OSHA recommended exposure limits are 1,000  $\mu g/m^3$  for Aroclor 1242 and 500  $\mu g/m^3$  for Aroclor 1254.

Wipe sample analytical results were between non-detected (less than 0.20) and 110  $\mu g/100 cm^2$  PCBs. Three floor wipe samples collected in the Cutting & Grinding Room (Area 12) near metal working machines had concentrations between 11.0 and 26.0  $\mu g/100 cm^2$  PCBs. One wall wipe sample collected at 1 foot above the floor in the Cutting & Grinding Room (Area 12) had a concentration of 110.0  $\mu g/100 cm^2$  PCBs. Two wall wipe samples collected at 4 feet above the floor in the Cutting & Grinding Room (Area 12) had concentrations of 4.6 and 21.0  $\mu g/100 cm^2$  PCBs. One wall wipe sample collected at 4 feet above the floor in the adjacent Aluminum Foundry Room (Area 10) had a concentration of 7.8  $\mu g/100 cm^2$  PCBs. The highest concentrations for floor and wall samples were on the east wall of the Cutting & Grinding Room (Area 12) near the location of the former embossing machine. Away from the location of the former embossing machine, PCB concentrations in wipe samples decreased significantly. Mr. James Voos (owner and operator of CFC) indicated that Commercial Foundry workers do not routinely come in contact with walls and are typically wearing gloves and uniforms that remain on Site when workers leave the building.

<u>Supplemental Interior PCB Characterization Report, June 2011(which was included as Appendix B of the GZA October 2012 Limited Source Removal Summary Report described below)</u>

The objective of this supplemental study was to complete additional characterization of PCBs in building materials by collecting wall paint chip, wall wipe and concrete floor samples at widely-spaced locations throughout the Site building.

Each of the paint chip samples collected contained PCBs at varying concentrations. However, only paint chip samples from the Cutting & Grinding Room (Area 12), the Oil Storage Room (Area 11) and the Aluminum Foundry Room (Area 10) just west of Areas 11 and 12 contained PCBs above 50 mg/Kg, which is the threshold below which materials can be considered "Excluded PCB Products" (i.e., the TSCA Section 761.3 definitions indicate Excluded PCB Products are products or sources of products containing < 50 ppm

concentration PCBs that were legally manufactured, processed, distributed in commerce, or used before October 1, 1984.). While wall paint chip samples in Area 11 and Area 12 ranged from 150 to 880 mg/Kg, paint chip samples from the Aluminum Foundry Room (Area 10) ranged from 21 to 150 mg/Kg and a paint chip sample from the Central Loading Dock (Area 4) contained 33 ppm PCBs. Paint chip samples in other parts of the building were below 13 mg/Kg with most of the paint chip samples from these other areas containing less than 10 mg/Kg PCBs.



GZA analyzed 10 wall wipe samples where corresponding paint chip samples contained elevated PCB concentrations. Wall wipe sample results ranged from 3.3 to 60  $\mu g/100 cm^2$ . Two wipe samples from the Cutting & Grinding Room (Area 12) contained 32 and 60  $\mu g/100 cm^2$  PCBs which are above the 10  $\mu g/100 cm^2$  criteria for unrestricted use. Also, a sample just west of the Cutting & Grinding Room (Area 12) along the south wall of the Mold Storage portion of the Aluminum Foundry Room (part of Area 10) had 12  $\mu g/100 cm^2$  PCBs. Other wipe samples from the Oil Storage Room (Area 11), and Mold Storage Room in the Aluminum Foundry (Area 10) and the Bronze Foundry Room (Area 14) contained PCBs less than 10  $\mu g/100 cm^2$ . It appears based on the data that except for the wipe sample in the Aluminum Foundry Room (Area 10), only the wipe samples from the Cutting & Grinding Room (Area 12) contained PCBs greater than the 10  $\mu g/100 cm^2$  unrestricted use criteria.

Supplemental analysis of concrete floor samples west of the Oil Storage Room and Cutting & Grinding Room (Areas 11 and 12) indicated surface samples (0 to 0.5 inches below floor surface) contained low level PCBs at concentrations from 0.58 mg/Kg to 17 mg/Kg. The concrete floor samples from 0.5 to 1 inch below floor surface were below 1 mg/Kg PCBs.

## Limited Source Removal Summary, October 2012

In December 2011 during a routine one week CFC plant shut down period surrounding the Christmas holiday, GZA performed a limited source removal of concrete and soils within the Cutting & Grinding Room (Area 12) because the Cutting & Grinding Room contained building materials with the highest concentration of PCBs and appeared to be the location of greatest PCB impacts at the Site. Approximately 33 tons of concrete and approximately 104 tons of soil were taken off-Site for disposal totaling approximately 137 tons of PCB remediation waste. The limits of the remediated area are shown on Figure 2. The remediated area was excavated up to four feet below the concrete floor (south end of remediation) based on previous characterization data. Once soils were removed, post excavation confirmation soil samples and below floor concrete foundation wall confirmation samples (east side of the excavation) were collected, the excavation was filled with flowable fill (a light weight concrete mix) and a new concrete floor was poured. Subsequently (see discussion below), an epoxy coating was applied over the entire floor in the Cutting & Grinding Room (Area 12) and a limited portion of the Aluminum Foundry (Area 10). The remedial excavation could not remain open pending confirmation sample analyses because any extended shut down of the CFC operations would have had a significant impact on business operations.

Analytical results for the concrete wall (east side limit of excavation), soil sidewall and soil bottom samples collected at the limits of the remedial excavation indicated

compliance with the remedial goal of 1 mg/Kg PCBs (unrestricted-use level in the TSCA regulations) for the northeast, north, west and southwest parts of the excavation area. However, concrete wall samples C-5 through C-8, sidewall soil sample SW-15 (4 feet bgs) and bottom soil samples BOT-4-10, BOT-5-10, BOT-6-10, BOT-7-10, BOT-8-10 and BOT-8-12 from the southeast portion of the excavation area contained PCB concentrations above 1 mg/Kg. In this area, stained concrete and soils were observed. Concrete wall staining was noted both above (lower portion of the wall) and below the floor slab. Soil staining, inferred to be PCB impacted soil, was present in the south wall of the excavation beyond the excavation area to the south. Additional excavation to the south was not possible based on time constraints placed on this phase of the remediation.



Oily sediment in a 4-inch diameter cast iron pipe that extended through the east wall of the foundation at the north end of the remedial excavation was sampled and analyzed and found to contain high levels of PCBs. The pipe was part of the former Cutting & Grinding Room (Area 12) floor drain system which had been flushed, plugged with a plastic sealant, and capped with concrete in 1992, prior to CFC occupying the Site building. The sediment sample was identified as Pipe-13-Soil and was found to contain PCBs at a concentration of 47,200 mg/Kg. We note that a soil sample from the sidewall of the remedial excavation immediately below the drain pipe did not contain PCBs. The 4-inch diameter pipe connects to a larger north-south running (active) storm drain pipe that is below the floor of the adjacent room (current Bronze Foundry Room – Area 14) to the east. The larger drain pipe to the east was left active in 1992 when the Cutting & Grinding Room (Area 12) floor drains were flushed and sealed since the piping currently conveys stormwater from building roof drains and from exterior catch basins north of the building to the municipal stormwater system beneath South Street (south of the Site building).

# Epoxy Paint Application to Floors, October 2012

Floor cleaning and epoxy coating in the Cutting & Grinding Room (Area 12) and an area just west of the Cutting & Grinding Room (total of 2,900 square feet) was completed in July 2012 during CFCs normal plant shutdown period. The epoxy was applied in the Cutting & Grinding Room (Area 12) to protect the new concrete floor installed over the limited source removal area from being re-contaminated with PCBs that might be tracked into the area during routine plant operations from other impacted floor areas. The epoxy paint was extended to the entire Cutting & Grinding Room (Area 12) and also out into a small portion of the Aluminum Foundry Room (Area 10) to the west of the Cutting & Grinding Room (Area 12) in order to cover those floor areas which were known (at that time) to have the highest concentrations of PCBs. In a telephone conversation with EPA to discuss the limited source removal, Kim Tisa (regional EPA PCB Coordinator) had recommended the floors be coated with epoxy to prevent tracking of PCBs onto the newly installed floor.

### 3.0 CONCEPTUAL SITE MODEL

A Conceptual Site Model ("CSM") was developed that considers the Site setting, operational history, constituents of concern, and available physical and chemical data in order to understand the potential for releases and the pathways through which releases might impact environmental media. Initially, a planning phase CSM was developed using existing Site data from previous subsurface investigations and available published data.

Prior to the start of the interior PCB assessment, the CSM below was used to design the sampling program for interior/exterior assessment of PCB impacted building materials and below-floor soils.

## 3.1 SITE TOPOGRAPHY AND ELEVATION



The overall Site topography generally slopes very gently from the northeast (high) to southwest (low). Site elevation is at approximately 85 feet above mean sea level (msl) based on the United States Geological Survey (USGS) New Britain, Connecticut 7.5-minute Topographic Quadrangle Map, dated 1966 and photo-revised in 1992. Area topography slopes gently to the southwest toward Willow Brook located approximately 2,800 feet southwest of the Site.

## 3.2 SURFICIAL AND BEDROCK GEOLOGY

According to the 1959 "Geologic Map of the New Britain Quadrangle, Connecticut" published by the United States Geologic Survey, soils beneath the Site consist of "fine-grained, non-cyclic" sediment. This material is described as reddish brown clay and silt characterized by contorted bedding. U.S.G.S. mapping indicates bedrock at an elevation of approximately 50 feet above mean sea level indicating that unconsolidated soils at the Site are approximately 35 feet thick which is consistent with the Site specific soil boring information previously obtained by GZA.

According to the 1966 "Bedrock Geology Map of the New Britain Quadrangle, Connecticut" published by United States Geologic Survey, bedrock beneath the Site is expected to consist of the Portland Arkose formation. A northeast to southwest trending fault is mapped near the southeast corner of the Site. The fault dips steeply (nearly vertical) according to a cross-section of the area that is presented on the geologic map. No bedrock outcrops were observed on-Site but bedrock outcrops are mapped approximately one quarter mile west of the Site.

### 3.3 HYDROGEOLOGY

According to the adopted Water Quality Classifications for the Connecticut River and Southeast Coastal Basin (CT-ECO website information), groundwater beneath the Site is designated by the Connecticut Department of Energy and Environmental Protection (CT DEEP) as Class GB, which indicates that the groundwater is presumed to be a non-potable water source.

Two bedrock industrial supply wells are located on the Site. One well was in use to provide cooling water to the CFC furnaces until July 2014 when CFC operations ceased. This well is an 8-inch diameter cased well located within a vault off the north-central side of the building. The well was pumped using a jet pump located inside the building. According to previous research, this well was tested in 1962 and provided a yield of 22 gallons per minute (gpm). The second well is located beneath the northwestern portion of the Site building in the Atlas Metalizing tenant space. Based on information contained in "Hydrogeologic Data for the Lower Connecticut River Basin" (CT Water Resources Bulletin No. 30, 1975), this is a 6-inch diameter well and is approximately 270 feet deep; it was installed in 1961 by "Coating Product". This well initially produced 75 gallons per

minute (gpm) with a 70 foot drawdown from a static condition of 30 feet. A well log contained in the Bulletin indicates the material encountered during drilling consisted of 10 feet of gravel underlain by 26 feet of clay, which in turn was underlain by blue slate and brownstone. The published information indicates bedrock was encountered 36 feet below ground surface and the overburden soils were sealed off from the bedrock aquifer by the well casing. The well referenced in the Bulletin is likely the well located beneath the Atlas Metalizing tenant space. This well is reported to be actively in use by Atlas Metalizing to supply make-up water to the cooling towers that service the metalizing machines.



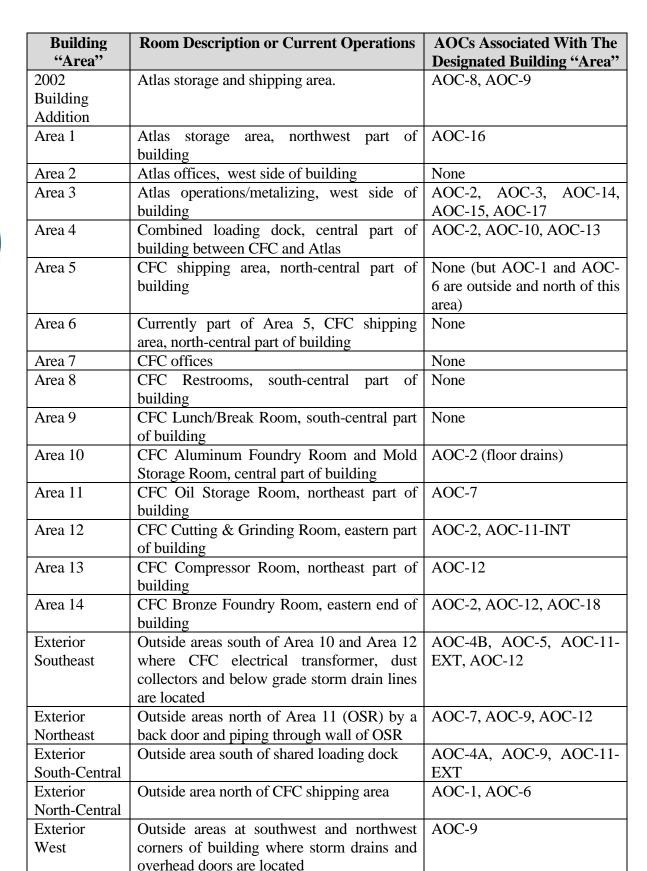
The nearest watercourse to the Site is Willow Brook, which is located approximately 4,000 feet to the south and approximately 2,800 feet to the southwest (at its closest point). Willow Brook flows to the southeast and is designated as Class B on the CT DEEP Water Classification map. Class B surface waters are suitable for recreational use, fish and wildlife habitat, agricultural and industrial supply and other legitimate uses including navigation.

Based on area topography and data from previous subsurface investigations performed on-Site by GZA, and at the adjacent Reflexite property to the south by others, groundwater beneath the Site is inferred to flow in a west to southwest direction. During previous GZA studies, groundwater was encountered at depths of 7 to 14 feet below the ground surface. GZA notes that localized groundwater flow direction in any portion of the Site may vary as a result of underground utilities, heterogeneous subsurface conditions and/or due to influence of the two on-Site process water pumping wells.

# 3.4 PLANNING CONCEPTUAL SITE MODEL

The Site has been used for commercial/industrial purposes dating back to the 1940s. Figure 1 is a Site Locus Map showing the Site location on a U.S.G.S. topographic base map. The Site is currently occupied by CFC (central and eastern portions of the Site building), which manufactured aluminum and bronze castings from 1993 until July 2014, and by Atlas Metalizing (western portion of the Site building), which applies metalized coatings to various types of films and laminates.

Figure 2 is a Site Plan showing the property boundary, the Site building footprint, surrounding Streets (with public utility lines indicated) and "Area" designations for certain interior portions of the Site building. The "Area" designations (black text) were used historically by GZA and other consultants to identify specific portions of the building interior which were divided by walls. We note the 2002 building addition (northwest corner of building) does not have an "Area" designation and exterior portions of the Site do not have "Area" designations. Building "Areas" are distinct from environmental Areas of Concern (AOCs) which are also shown on Figure 2 as red boxes that indicate the approximate limits of suspect and/or confirmed contaminant release areas (which were identified during the Phase I, II and III environmental investigation process). We note that previous reports have used a variety of space designations, including AOCs, building "Areas" and specific operational areas (i.e., Cutting & Grinding Room - Area 12), when describing the location of releases, investigations and remediation activities. The table below shows the relationships between AOCs, building "Areas" and other space names that have been previously used when describing the Site environmental conditions.





Based upon prior investigations at the Site, the release mechanism for PCB impacts to the interior walls, floors, and soils is spills and leaks from PCB-bearing machine oils that are

presumed to be from historical use of a former embossing machine in the Cutting & Grinding Room (Area 12). The embossing machine used heated oil in liquid filled rollers for thin film embossing. The embossing machine was likely located along the east wall of the Cutting & Grinding Room (Area 12) based on the distribution of PCBs noted during previous Site investigations. In addition, PCB-bearing oils may also have been stored in the Oil Storage Room (Area 11) where they could have been spilled to the floor during routine handling of drummed oils.



PCBs from the embossing machine or from storage of PCB-bearing oils appear to have migrated below the floor slab. The seam where the floor slab meets the foundation wall along the eastern side of the room appears to have been a pathway for surface spills from the embossing machine to migrate to soils beneath the floor slab. Based upon staining observed on the eastern wall and soil and concrete foundation wall/footing analytical results from the remedial excavation (limited source removal) in the Cutting & Grinding Room (Area 12), PCB-bearing oils appear to have migrated down the eastern foundation wall and spread into soils around the foundation footing. Previous testing also indicates impacted soil remains in-place below the floor near the southern end of the remedial excavation area.

Site soils are dense and relatively impermeable (glacial till with significant silt and clay) and PCBs are relatively immobile in dense soil. However, soils in the immediate vicinity (within approximately one foot) of building foundation walls and footings are more permeable sandy soil. Migration of PCB oils in the more permeable fill along the foundation may have occurred but the PCB impacts do not appear to have migrated significantly into the denser, native soils away from foundation footings. The extent of PCB impacts to soils proximal to the footing, on both sides of the wall between the Cutting & Grinding Room (Area 12) and Bronze Foundry Room (Area 14), was a data gap that was further evaluated and closed as part of this planned supplemental testing.

Sub-slab soil characterization data indicate no significant discharges beneath the floor drains (which were previously cleaned and plugged with concrete) in the Cutting & Grinding Room (Area 12). However, a sample of sediment collected from inside a former floor drain pipe at the north end of the Cutting & Grinding Room (Area 12) remedial excavation had PCBs at high concentrations (greater than 47,000 mg/Kg). As such, it appears, PCBs are present in sediment in the floor drain system which formerly connected to the Site stormwater lines. While the floor drains in the Cutting & Grinding Room (Area 12) and Bronze Foundry Room (Area 14) were flushed, plugged and sealed with concrete, the main storm drain line was left open and active so that stormwater from the building roof drains and two catch basins north of the building could flow to the municipal stormwater lines located below South Street. The Site stormwater collection system starts at the northern property line at two exterior catch basins immediately north of the Oil Storage Room (Area 11). Storm drain piping from these catch basins runs below the Bronze Foundry Room (Area 14) floor, traverses the length of the Bronze Foundry Room (Area 14) in a north to south direction and then exits the building at the southwest corner of the Bronze Foundry Room (Area 14) (see Fig. 2A). After exiting the south side of the building, the stormwater line extends to the municipal sanitary sewer or storm sewer lines located below South Street. The exact location of the stormwater pipes outside the south wall of the building and the location of piping connections (which would be the most likely location of a release to soils) were data gaps that were further assessed and closed as part of the supplemental study. It was possible that PCB impacts to soils surrounding the storm drain system could have occurred at pipe connections, therefore, additional testing was performed along the pipe and focused on pipe connections.

Along the east wall of the Cutting & Grinding Room (Area 12), existing data indicate embossing machine operations and/or oil handling have resulted in PCB impacts to the walls of the Cutting & Grinding Room (Area 12). The highest PCB impacts for wall samples (samples collected 1/2-inch into the concrete wall surface) are adjacent to the highest PCB concentrations in concrete floor and below floor soil samples. Paint samples with elevated PCBs were also found in the Aluminum Foundry Room (Area 10) to the west of the Cutting & Grinding Room (Area 12). Elevated PCB levels in wall paint samples outside the Cutting & Grinding Room (Area 12) with decreasing levels with distance from the Cutting & Grinding Room suggest the spread of PCBs was from misting of machine oils with PCBs when the embossing machine was operating. Consistent lower concentrations of PCBs in wall paint samples further from the source and in the Atlas tenant space indicate that some low level of PCBs (<15 mg/kg) may also be present in paint itself. Oil misting from the embossing machine is consistent with information reported by Mr. Gilles Beaudoin who currently works for Atlas Metalizing but also worked for the former tenant that operated the embossing machine in the Site building.



Paint samples from the walls of the Shared Loading Dock (Area 4) contained PCBs at concentrations up to 58 mg/Kg; higher than levels in wall paint samples from other surrounding building areas immediately to the east and west. Previously, exterior soil remediation for PCBs was performed just outside (south of) the Shared Loading Dock (Area 4) and it is therefore likely that PCB oils were managed through this loading dock area. Except for building Areas 10, 11 and 12, other parts of the Site building (further away from former embossing machine areas) had paint with PCBs up to 13 mg/Kg in wall samples. It is not clear if these low level (<15 mg/Kg) PCBs in wall samples away from the former embossing machine locations are due to oil misting throughout the facility or from PCB containing paint that may have been used throughout the facility at one time. However, it is clear that PCB levels in wall samples from the Shared Loading Dock (Area 4) are elevated compared to building areas occupied by Atlas and the Commercial Foundry areas immediately to the west and east of the Shared Loading Dock (Area 4). Testing to identify the extent and magnitude of PCB impacts to walls and ceilings was considered a data gap which was addressed and closed by the supplemental testing.

PCBs spilled in the Oil Storage Room (Area 11) and Cutting & Grinding Room (Area 12), respectively, which have been referenced in other reports-,) also appear to have been tracked into the Aluminum Foundry Room (Area 10) to the west. No PCBs were detected in a limited number of floor samples previously collected at locations just inside the Bronze Foundry Room (Area 14), to the east of the Cutting & Grinding Room (Area 12) and Oil Storage Room (Area 11). However, because only a few samples were collected in the Bronze Foundry Room (Area 14), a more comprehensive assessment of the floor in the Bronze Foundry Room (Area 14) was determined to be necessary. Also, PCBs in concrete floors elsewhere in the building were not tested and further testing was performed as part of this supplemental assessment to address and close this data gap.

PCBs had not been tested in groundwater at the Site prior to this study. The potential for PCBs in groundwater was considered a data gap in the planning CSM. However,

groundwater monitoring results from February and June 2013 did not indicate the presence of PCBs above the laboratory Method Reporting Limit (MRL).

#### 4.0 REGULATORY SETTING



Based on the Site's status within the CT DEEP Transfer Act Program and Voluntary Remediation Program (VRP), and the presence of PCB concentrations in concrete and soil that also require compliance with Federal TSCA regulations, investigations of the PCB impacted areas were conducted in a manner that met the requirements of both the State (RSRs under the Transfer Act and VRP) and Federal (TSCA) regulations. Under the RSRs, soils are required to meet Direct Exposure Criteria and Pollutant Mobility Criteria. GZA notes that groundwater quality is briefly mentioned in this TSCA report but will be discussed in more detail in the separate Transfer Act report. We also note that the TSCA regulations apply to PCB impacts to building materials which are not addressed in the RSRs.

GZA notes that a Remedial Action Plan for the Site, including demolition of the CFC portion of the building, will be developed by the FDIC.

#### 5.0 BUILDING AND SUBSURFACE INVESTIGATIONS

GZA's building and subsurface PCB characterization program was developed based on the above conceptual site model (CSM) which incorporated the results of previous Site investigations. The following sections summarize additional assessment of PCBs in soils below floors and along drain lines, concrete floors, concrete walls and ceilings at the Site.

#### 5.1 TEST PITS, SOIL BORINGS AND SURFICIAL SOIL SAMPLING

#### **Test Pits**

GZA subcontractor AES Remedial Contracting LLC excavated nine test pits on the Site in December 2012. GZA subcontractor ESI Environmental Inc. excavated five test pits in July 2013. Nine of the test pits were outside the building, between the building and South Street, and five of the test pits were inside the building along the western wall of the Bronze Foundry Room (Area 14). Exterior test pits TP-4 and TP-10 were at the same location but were excavated on different dates for different purposes. The test pits were excavated to further assess PCB impacts to the active storm drain system and along former (abandoned) floor drain and stormwater lines. Test pit locations are shown on Figures 2A and 2C and cross sections of select test pits are shown on Figures 2B and 2D. Prior to excavating the interior test pits, the concrete floor was cut and removed. The exterior test pits were excavated up to 5.5 feet below grade and the interior up to 3.5 feet below grade. Test pits were excavated with a John Deere 35D mini-excavator in December 2012 and a John Deere 50D mini-excavator in July 2013. Excavation inside the building exposed portions of a 6-inch Orangeburg drain pipe (Orangeburg pipe is an asphalt coated, fibrous piping historically used for building drain lines), an 8-inch ductile iron storm drain pipe and abandoned iron floor drain pipes (2 to 4 inches in diameter).

Excavations in December 2012 were performed at the inferred locations of pipe connections which had been identified by Underground Surveying LLC, a utility locating subcontractor. Underground Surveying traced the alignment of piping using electronic

methods to assist GZA in the location of the test pits. Also, Underground Surveying used an in-pipe televiewer to observe the interior of the 8-inch iron stormwater line which was accessed from a stormwater sampling port in the Compressor Room (Area 13). The 8-inch stormwater piping could be observed from the Compressor Room (Area 13) to the point at which the pipe turned to exit the building at the south end of the Bronze Foundry Room (Area 14). The televiewer could not access piping outside the building. Underground Surveying noted the approximate locations of former floor drain line connections with the active 8-inch iron stormwater pipe. Floor cuts for test pits were then cut above the locations identified by Underground Surveying. At the time of the utility line observations, Underground Surveying reported that the 8-inch iron stormwater pipe appeared to be clean and free of cracks or holes. Televiewer data did not indicate potential release areas (e.g., holes or cracks in the pipe) along the 8-inch iron piping except at the connections with former floor drain lines and one straight coupling in the 8-inch line.



In July 2013 Underground Surveying was able to trace the locations of the exterior active and inactive stormdrain lines using a sonde with a radio detection receiver and an inpipe televiewer as described below. This was done by placing the sonde and televiewer within the stormdrain pipes when they were exposed by test pit excavations. The stormdrain pipes were accessed by exposing the piping in test pits and then cutting the stormdrain pipe to place the sonde and televiewer into the pipes.

# Active Stormdrain Line (1960s stormdrain line)

The active stormdrain line was accessed by cutting the exposed piping at test pit TP-10 (same location as TP-4 that was excavated in December 2012). The piping in test pit TP-10 was observed to be 8-inch Orangeburg pipe approximately four feet below the ground surface. Underground Surveying placed a sonde and televiewer into the pipe after the pipe was cut by ESI. Underground Surveying observed the televiewer output and reported the piping was clean, free of sediment and in good condition. The televiewer was extended approximately 85 feet to the west inside the pipe where the stormdrain line appeared to bend; the televiewer and sonde could not travel further than 85 feet down the pipe. Test pit TP-12, was excavated beneath the sidewalk where the pipe was observed to bend and test pit TP-13 was excavated just before the sidewalk upstream (east) of where the pipe bend was observed and at the location of a pipe coupling. observations from the test pits, it appears the 8-inch Orangeburg pipe connects to an older clay pipe of similar size through a "T" joint (also made of clay). The Orangeburg pipe was cut to collect a pipe sample upstream of the clay pipe "T" and the televiewer was placed into the pipe. By extending the televiewer and sonde into the connecting clay pipe, the stormdrain line was observed to traverse from the "T" joint south to connect with the municipal stormdrain line in the street. Based upon observations from the televiewer, the clay pipe that runs out into the street appears to be free of sediment and in good condition. GZA opened a manhole at the intersection of South and East Streets, to the southwest of the Site. Two stormdrain lines entered the manhole from the east (coming from in front of the Site building). A representative of the City of New Britain's sewer department indicated the deeper stormwater line was older (installed in the 1920s) and the shallower stormwater line was younger and probably installed in approximately 1979. Underground Surveying was unable to confirm if the storm line from CFC was connected to the newer or older storm line in South Street. Because both the newer and older stormwater lines connect to the same manhole at the South Street and East Street intersection, both lines

may be active. Underground Surveying was not able to push the televiewer north from the "T" towards the building and could not confirm where the clay stormwater pipe goes under the building.

# Inactive Stormdrain Line (1972 stormdrain line)



The inactive stormdrain line was accessed by cutting the exposed piping at test pit The piping in test pit TP-11 was observed to be 8-inch Orangeburg pipe approximately 2.5 feet below the sidewalk. Underground Surveying placed a sonde and televiewer into the cut pipe. Based on observations of the televiewer by Underground Surveying, the piping was reported to be clean of sediment and in good condition. The televiewer was able to travel approximately 12 feet to the west where a void was encountered and the televiewer could travel no further. The east end of this pipe ends next to the transformer to the east; this end of the inactive stormdrain line was observed during soil remediation around the transformer in 2009. Test pit TP-14 was excavated at the approximate location of the void at the west end of the inactive storm line. Soils were removed and the Orangeburg pipe was observed to enter into a buried catchbasin. The catchbasin is approximately three feet long and with a cement top that extends into South Street under the curbing along South Street. The cement top overhangs the catchbasin on the east and west sides by approximately 0.8 feet and appears to be a cap of concrete that was installed to seal off the catchbasin when it was abandoned (date unknown). The Orangeburg pipe was removed from the catchbasin and a tape measure was placed into the opening in an attempt to measure the depth of the catchbasin. Based upon field measurements the catchbasin is approximately four feet below the ground surface. The discharge location of the catchbasin was not able to be observed, but based upon a map of the stormdrain system on file at the Town of New Britain Engineering Department which depicts the catchbasin, it likely discharges to the older municipal stormdrain line in South Street. Data collected to date suggests the inactive stormdrain line was used from 1972 to 1993 when it was abandoned when the transformer was installed; prior to CFC occupying the Site building.

Test pit soils were consistent with the Site CSM and generally consisted of fine to coarse sand (fill) overlaying silt and/or clayey-silt to silty-clay (glacial till). GZA did not observe staining or odors in test pit soils. The table below summarizes the test pit excavations.

Test Pit ID	Depth (feet)	Dimensions (feet)	Sample ID
Test Pit 1	4	3.5 x 7	(no piping observed and no samples collected)
Test Pit 2	5.5	3.5 x 8	(no piping observed and no samples collected)
Test Pit 3	5	3.5 x 10	(no piping observed and no samples collected)
Test Pit 4	5	3.5 x 7	EXT-101
Test Pit 5	3.5	Approximately 11'x9'(irregular shape)	A-14-S-1, A-14-S-2, A-14-S-3, A-14-S-4, A-14-S-5, Orangeburg Pipe
Test Pit 6	3.5	3 x 5	A-14-S-6
Test Pit 7	3.5	5 x 7	A-14-S-7, A-14-S-8, A-14-S-18 (boring)
Test Pit 8	3	4 x 5	A-14-S-14, A-14-S-19 (boring)
Test Pit 9	4	7 x 15	A-14-S-9, A-14-S-10, A-14-S-11, A-14-S-12, A-14-S-13, A-14-S-15, A-14-S-16, A-14-S-17, A-14-S-21

Test Pit ID	Depth (feet)	Dimensions (feet)	Sample ID
Test Pit 10	5	5 x 10	Orange-1 and duplicates
Test Pit	3.5	5 x 10	Orange-2
Test Pit 12	4.5	5 x 13	EXT-102, EXT-103, Orange-3
Test Pit 13	4.5	5 x 7	EXT-104
Test Pit 14	3	5 x 14	EXT-105, EXT-106 (boring), Orange-4 (not analyzed)



GZA collected 28 soil samples from the test pits at depths between 1.5 and 4.75 feet below grade along with Quality Assurance/Quality Control (QA/QC) samples. Samples of the Orangeburg pipe were also collected. The Orangeburg pipe appeared to be relatively porous, may have absorbed PCBs and was found to be broken or degraded where it formerly connected to floor drain lines.

Soil sampling depths were chosen to assess soil conditions around the piping connections and adjacent to the building foundation. Samples were collected immediately above piping, from inside degraded Orangeburg piping, of the Orangeburg piping, below Orangeburg piping, below 8-inch iron piping, below connections and couplings and adjacent to the building footing. Samples were collected in three-inch increments and placed in clean sample jars provided by the laboratory. Jars were placed in a cooler with ice pending delivery to a Connecticut certified laboratory for analysis of PCBs. Analytical results for soil samples collected from test pits are summarized on Table 1A. (Soil samples from previous Site investigations are summarized in Tables 1B through 1 F). If samples were not going to be analyzed within 7 days (i.e. deeper samples), they were placed in a freezer by the laboratory so that the holding time could be extended (consistent with CT DEEP and EPA protocol). After sampling, the soils and piping were placed back in the excavation they were removed from in lifts so that soils and piping were returned to their approximately original location. Excess soil and concrete removed from the excavation areas was taken off-Site for disposal at a TSCA Subtitle C facility.

# Soil Borings and Surficial Soil Sampling

Six Geoprobe® soil borings were completed in the Cutting & Grinding Room (Area 12) south of the previous soil remediation area in this room. Three Geoprobe® soil borings were completed adjacent to the west wall of the Bronze Foundry Room (Area 14) and six Geoprobe® soil borings were completed adjacent to the east wall of the Bronze Foundry Room (Area 14). Five Geoprobe® soil borings for PCB sampling were completed in the Atlas tenant space with two borings located in the Atlas Metalizing Shop (Area 3) and three borings located in the Shared Loading Dock (Area 4). Five hand auger exterior soil borings and six Geoprobe® soil borings were completed north of the Aluminum Foundry Room (Area 10) and the Oil Storage Room (Area 11) near and within catchbasin CB-2. A single Geoprobe® soil boring was completed by a buried catchbasin along South Street south of the building next to the abandoned 1972 stormdrain line. Boring logs are attached in Appendix B. Boring locations are shown on Figures 2A through 2J.

Borings in the Cutting & Grinding Room (Area 12) were performed to assess the extent of PCB impacts identified in the sidewalls of the former excavation completed in December 2011 (see previous reports). Borings in the Bronze Foundry Room (Area 14) were performed to assess soils around active and abandoned storm water lines. Borings in the Atlas Metalizing area were performed to characterize site soils around areas of observed oily staining at a compressor in the Shared Loading Dock (Area 4), a hydraulic oil reservoir associated with a trash compactor in the Atlas Metalizing Shop (Area 3) and at two drum storage areas in the Atlas Storage Room (Area 1) and Atlas Metalizing Shop (Area 3). Exterior borings north of the Aluminum Foundry Room (Area 10) and the Oil Storage Room (Area 11) were performed to assess surficial soils by the back door to the Aluminum Foundry Room (Area 10) and the northern catch basins.



GZA notes testing in the Atlas Metallizing portion of the building was primarily performed to address Connecticut Transfer Act issues but select samples at five locations in the Atlas area were also tested for PCBs to confirm releases regulated under TSCA had not occurred in these areas.

Prior to drilling, the concrete floors at the interior boring locations were cored with a concrete core drill. The soil borings in the Cutting & Grinding Room (Area 12), the Bronze Foundry Room (Area 14) and six soil borings north of the Oil Storage Room (Area 11) were bored with a Geoprobe® direct push sampling rig. Five exterior soil borings north of the Oil Storage Room (Area 11) and the borings in the Atlas Metalizing portion of the building were bored using hand auger techniques or with a core barrel driven into the ground with hand tools. Soil boring locations are shown on Figures 2A through 2J. Soil descriptions for materials beneath the floor slab were consistent with the Site CSM and generally consisted of fine to coarse sand overlaying silt and/or clayey-silt to silty-clay.

Geoprobe® borings utilized macro core samplers outfitted with clean, dedicated liners (acetate sleeves) for sample collection. Soil samples were collected in three-inch increments from the acetate sleeves. Soil samples at hand auger sampling locations were collected from the barrel of the hand auger after advancing the auger in three inch intervals or from a three inch interval from a core barrel driven with hand tools. Exterior samples (EXT-1 to EXT-5) were collected at the ground surface immediately below trap rock gravel layer that covered the ground north of the building. The trap rock did not contain soil or sediment and was approximately 0.5 feet (or six inches) thick. Therefore the soil samples identified as having been collected at 0.5 to 0.75 feet below grade at locations EXT-1 to EXT-5 are considered surface samples (just below trap rock covering).

Soil samples from borings A-12-S-1 through A-12-S-6 located in the Cutting & Grinding Room (Area 12) were collected at 2.5 to 2.75 feet, 4.75 to 5 feet, and 5.75 to 6 feet below the concrete floor surface and were placed in clean laboratory provided sample jars pending analysis. The depth of the soil samples corresponded to previous sampling depths in the Cutting & Grinding Room (Area 12). Samples were collected to bracket previous sample locations and depths so that the extent of PCB soil impacts below the floor could be better defined.

Soil samples from borings A14-S-18 and A14-S-19 in the Bronze Foundry Room (Area 14) were collected from 4 to 4.25 feet below the concrete floor. These depths were

just below the top of the building footing and equal to the depth at which elevated PCBs were detected in the Cutting & Grinding Room (Area 12) during the limited source removal. Soil samples A14-S-22 through A14-S-24 were collected from just below the concrete floor in the Cutting & Grinding Room (Area 12) to define the extent of soil impacts below the floor in this room.

Soil samples were placed in clean sample jars provided by the laboratory and the jars were placed in a cooler with ice pending delivery to a Connecticut certified laboratory for analysis of PCBs. PCB analytical results for soil samples collected at the Site are summarized on Tables 1A through 1D and table 1F; recent data are presented on Tables 1A and 1F.



#### 5.2 CONCRETE SLAB SAMPLING

Concrete floor samples were collected at 76 locations at two depths: from the surface to 0.5 inches; and 0.5 to 1 inch below grade. The concrete floor sample locations are shown on Figure 3. Concrete surfaces at each floor sample location were cleaned of foundry dust and lose dirt with a shop vacuum outfitted with a HEPA filter prior to sampling. A concrete coring machine was used to collect the concrete samples along with Quality Assurance/Quality Control (QA/QC) samples.

In December 2012, at each location, Witch Enterprises was subcontracted to advance a core barrel to a depth 0.5 inches below the floor surface. After the core barrel was backed out of the hole, GZA used a hammer drill to chip the first half inch concrete core out of the floor. The top ½-inch concrete sample chipped from the hole was collected and placed in a clean glass sample jar provided by the laboratory. The sample jars were labeled with the appropriate sampling information and were then was placed in a cooler with ice pending deliver to a Connecticut certified laboratory for analysis of PCBs. After the surface to 0.5inch sample had been collected the interior of the core hole and the area surrounding core hole was thoroughly vacuumed with a shop vacuum outfitted with a HEPA filter to remove residual dust and debris. The core barrel was decontaminated by GZA after the first sample interval by scrubbing in a soapy water solution, followed by drying, then a final wipe down of the core barrel with a hexane soaked rag/gauze pad. After decontamination, the core barrel was advanced by Witch Enterprises an additional half inch at each location to facilitate collection of the 0.5 to 1.0 inch interval of the floor. The second depth interval sample was collected by GZA, labeled and preserved similar to the first sample interval. Core barrels were also decontaminated between each sampling location.

GZA collected an additional 25 concrete floor samples in June 2013 using the procedure outline above with the exception that Witch Enterprises was not subcontracted. GZA was responsible for advancing a core barrel and collecting samples from the surface to 0.5 inches and from 0.5 inches to 1 inch. After collection of the two concrete floor samples (0 to 0.5 inch and 0.5 to 1.0 inch sample intervals) the sampling area was again cleaned with a HEPA vacuum and each core hole was restored by GZA with a concrete patch.

Analysis of samples was to be sequentially with depth depending on analytical results for the surface samples. If samples were not going to be analyzed within 7 days (i.e. deeper samples), they were placed in a freezer by the laboratory so that the holding time could be extended (consistent with CT DEEP protocol). Table 2A summarizes concrete floor analytical results for the current investigation and Table 2B summarize prior analytical results for concrete floor samples.

#### 5.3 CONCRETE WALL SAMPLING

GZA collected paint/concrete chip samples from interior walls of the Site building using hand tools. Twenty-seven (27) wall samples were collected four feet above the building floor, ten (10) wall samples were collected from 10-feet above the building floor, and ten (10) wall samples were collected from 15-feet above the building floor along with Quality Assurance/Quality Control (QA/QC) samples. Samples locations are shown on Figure 4.



Samples were collected using a Dremmel oscillating tool with a grout removal blade. Prior to collecting the wall samples, clean rags were utilized to wipe the sample area clean of dust and dirt to facilitate collection of samples representative of the concrete wall. CFC equipment and the floors below the wall sample locations were also cleaned prior to sampling. The blade of the Dremmel was cleaned with hexane soaked wipes prior to collection of each sample.

The open end of a clean plastic sample bag was taped to the wall around the sampling location. The blade of the Dremmel was inserted through the plastic bag and up against the wall surface. This allowed the sample location to be surrounded by plastic as the Dremmel operated. As sampling proceeded, concrete paint/concrete dust from the wall dropped into the sample bag. Taping the bag to the wall contained the paint/concrete dust during sampling and prevented concrete dust/chips from spreading to surrounding the environment. Sample locations were cleaned after sampling with a shop vacuum outfitted with a HEPA filter. The content of each sample bag was then placed into a laboratory provided glass container. Samples were placed in a cooler with ice pending deliver to the laboratory for analysis.

A double layer of disposable Nitrile gloves was worn by the sampler and the outer gloves were changed between each sample to prevent cross contamination of samples. Gloves and rags used for cleaning were placed in a labeled, covered container (drum) pending disposal as PCB remediation waste. Analytical results for the most recent wall samples are summarized in Table 3A and from prior investigations in Table 3B and Table 3C. We note that below floor concrete foundation wall samples were collected during the previous December 2011 soil remediation in the Cutting & Grinding Room (Area 12) and those foundation wall samples are included in Table 1E.

## 5.4 CEILING WIPE SAMPLES

The surface of the ceilings in Cutting & Grinding Room (Area 12), Oil Storage Room (Area 11), the Shared Loading Dock (Area 4) and the Aluminum Foundry Room (Area 10) is constructed of steel decking, an impermeable surface. Given the ceiling materials, wipe sampling of the surface was the appropriate method of testing to characterize PCB impacts to ceilings. GZA characterized interior ceilings by collecting ceiling wipe samples for PCBs in the Cutting & Grinding Room (Area 12), Oil Storage Room (Area 11), Shared Loading Dock (Area 4) and Aluminum Foundry Room (Area 10). Since the source of the PCB release, according to our conceptual site model, was from heat transfer oils from an embossing machine, GZA focused on sampling in the vicinity of the Cutting & Grinding

Room (Area 12) which was likely to be the location of greatest impacts from misting oil. Other wipe samples farther from the Cutting & Grinding Room (Area 12) were collected but placed on hold pending results of the ceiling wipe samples collected proximal to the Cutting & Grinding Room (Area 12). A total of 20 wipes samples were collected; 15 of these samples were submitted to the laboratory for PCB testing and five were placed on hold pending results of the 15 samples submitted to the laboratory. Ceiling wipe sample locations are shown on Figure 5. Analytical results for ceiling samples are summarized on Table 4.



Wipe samples were collected in general accordance with the standard wipe test as described in 40 CFR 761.123. Samples were collected from the prescribed 100 centimeter square area using a laboratory-prepared hexane-soaked gauze pad. Disposable nitrile gloves were changed between each sample collection to prevent cross-contamination between samples. After use, samplers, gloves, and other PPE were placed in containers on the Site pending disposal. Prior to wiping, the sample location was marked or framed by a 10 centimeter square template. The surface was wiped in two passes with a uniform pressure. The first pass was performed with a left-to-right motion across the 100 centimeter square sampling area followed by a second pass in a top-to-bottom motion across the sampling area.

Once the area was wiped, the sampling gauze was placed back in the sample jar. The sample jar was labeled, the chain of custody completed and the sample was stored in an iced cooler pending transport to the laboratory.

## 5.5 LABORATORY ANALYSIS

Samples were submitted to a Connecticut certified laboratory for analysis of PCBs by EPA Method 8082. Consistent with TSCA requirements, samples were extracted by the EPA Method 3504C, Manual Soxhlet extraction prior to analysis. Tables 1 through 4 summarize soil, concrete floor, wall/paint and ceiling analytical results. Laboratory analytical reports for the December 2012 and July 2013 sampling are attached in Appendix C. A total of 234 samples were collected and analyzed not including quality assurance/quality control (QA/QC) samples. Thirteen samples were submitted as duplicate samples as part of the QA/QC for this assessment.

Initially, the 0 to 0.5 inch deep concrete floor samples were analyzed by the laboratory. After results for the first round of analyses were reviewed by GZA, the deeper concrete samples were analyzed at locations where the first sample contained PCBs at or above 1.0 mg/Kg.

A summary of results for the four different media that were laboratory analyzed is described below.

# Soil Sample Analysis

Cutting & Grinding Room (Area 12) Sub-Slab Soils

Fourteen of the 15 soil samples collected from below the floor of the Cutting & Grinding Room (Area 12) did not contain PCBs above the MRL as indicated in Table 1A. One soil sample from location A12-S-2 at a depth of 4.75 to 5 feet below grade had a PCB concentration of 1 mg/Kg. The A12-S-2 sample was collected south of the 2012 limited soil remediation area. Samples collected south and west of the A12-S-2 sample at similar depth did not contain PCBs above the MRL. There is no sample east of A-12-S-2 because the building foundation wall is found in this direction.



#### Bronze Foundry Room (Area 14) Sub-Slab Soils

Twenty-two soil samples (test pit and soil boring samples) collected from beneath the floor in the Bronze Foundry Room (Area 14) were collected along the west wall around two storm drain pipes. Samples were also collected at the depth of the building footing along the west wall which is approximately four feet below grade adjacent to the stormwater piping. Three soil samples were collected along the east wall.

Along the west wall of the Bronze Foundry room, fifteen of the 22 samples collected from below the floor had reported concentrations of PCBs (see Table 1A). Of the 15 samples with PCBs, nine samples had concentrations between 1 and 6,100 mg/Kg. which exceed the 1 mg/Kg PCB unrestricted use level. We note that the sample containing PCBs at 6,100 mg/Kg was a piece of the degraded, abandoned Orangeburg pipe that had soil stuck to it at the north end of the Bronze Foundry Room (Area 14). The soil sample with the highest PCB concentrations from this area had 710 mg/Kg PCBs. Soils from immediately below the Orangeburg pipe at location A14-S-4 (north end of the Bronze Foundry Room - Area 14) and A14-S-13 (south end of Area 14) contained 420 and 710 mg/Kg PCBs, respectively. Other soil samples from the Bronze Foundry Room (Area 14) that exceeded the 1 mg/Kg PCB criteria ranged in PCB concentrations from 1 to 24 mg/Kg.

Soil samples collected at the depth of the building footing (A-14-S-18, A-14-S-19, and A-14-S-20 at 4 to 4.25 feet below grade) did not contain PCBs above the MRL.

Soils samples collected immediately beneath the concrete floor (A-14-S-22, A-14-S-23, and A-14-S-24) along the east wall of the Bronze Foundry room did not contain PCBs above the MRL.

## Exterior Soils South of Building

Six soil samples were collected from the test pits including three soil samples collected from a boring at test pit location TP-14 using a Geoprobe®, the boring was completed after test pit TP-14 was backfilled and extended to depths below the bottom of the test pit. PCBs were not detected above the MRL in soil samples EXT-101, EXT-103, EXT-104, and EXT-106. PCBs were detected above MRLs and the 1 mg/Kg unrestricted use criteria at EXT-102 and EXT-105. Both EXT-102 and EXT-105 was collected from below the Orangeburg piping. Samples of Orangeburg piping were also collected at three

locations (Orange-1, Orange-2 and Orange-3 on Figure 2C) to assess the extent of impacts to the piping. PCBs were detected up to 37,000 mg/Kg (duplicate sample of Orange-1 found just west of the current CFC dust collector equipment) in the piping. We note pieces of pipe collected at Orange-1 were analyzed three times. The original Orange-1 sample contained 23,000 mg/Kg PCBs. A duplicate sample of Orange-1 was analyzed for QA/QC purposes and was found to contain 37,000 mg/Kg PCBs. Because the Orange-1 sample was found to contain such high levels of PCBs, GZA requested the laboratory analyze an additional aliquot of this sample (additional pieces of pipe taken from the same sample jar as the original Orange-1 sample) as a "re-run" of the sample. The laboratory performed the re-run analysis and the result was 14,000 mg/Kg PCBs. Based upon conversations with Phoenix Laboratories, the wide variation in the results is due to the heterogeneity of the sample matrix (fibrous asphaltic pipe may absorb PCBs at different rates depending on the natural variation in the pipe material).



We note that a 2002 zoning location survey (which is based upon a September 1993 A-2 survey by Juliano Associates), indicates the southern CFC property boundary line is located at the northern edge of the sidewalk that runs along South Street, south of the Site building. Therefore, certain soil samples and pipe samples collected beneath and south of the sidewalk (in the narrow strip of grass between the sidewalk and the street curbing) may be located within the right of way for South Street and are therefore just off the Site to the south.

### Exterior Surficial Soils North of Building

In December 2012, five soil samples and one catch basin sediment sample were collected north of the building near a back door and a stormwater catch basin. PCBs were not detected above the MRL in soil samples EXT-1 through EXT-3 which are north of the Aluminum Foundry Room (Area 10) in the vicinity of a back door (Table 1A). No PCBs above the MRL were detected in sample EXT-4 which was obtained outside and north of the center of the Oil Storage Room (Area 11). However, PCBs were detected in sample EXT-5 at 2.6 mg/Kg; this sample was located closest to the north catch basin near the northwest corner of the eastern most building addition that includes the Compressor Room (Area 13) and the Bronze Foundry Room (Area 14). PCBs were also detected in the catch basin sediment sample at 2.2 mg/Kg. Both the EXT-5 and catch basin sediment sample exceed the 1 mg/Kg unrestricted use criteria.

In July 2013, ten soils samples (including one from below the catchbasin) were collected from six borings. PCBs were not detected above MRL in soil samples EXT-8 (0.5-0.75), EXT-9 (0.75-1), EXT-10 (1.75-2), EXT-10 (2.75-3), and Catch Basin North (2.75-3). PCBs were detected above MRL in EXT-6 (0-0.25), EXT-6 (0.25-5), EXT-7 (0-0.25), EXT-9 (0.5-0.75), and EXT-10 (0.25-0.5). PCBs detected in EXT-6 (0-0.25) and EXT-9 (0.5-0.75) were in exceedance of the 1 mg/Kg unrestricted use criteria. The soil samples that contained PCBs greater than 1 mg/Kg were collected at the ground surface (in some cases ground surface was considered just below a layer of trap rock that did not contain soil) and deeper samples indicated PCBs were less than 1 mg/Kg.

Seven soil samples within the Atlas Metalizing portion of the building were submitted for PCBs. No PCBs above the MRL were detected in the seven soil samples (Table 1F) indicating no release of PCBs to below-floor soils in this portion of the building including the Shared Loading Dock (Area 4).

## Concrete Floor Sample Analysis



Seventy-six floor samples locations were sampled (at two depths) to further delineate PCB floor impacts and close data gaps. Laboratory reports for samples collected from the concrete floors are summarized on Table 2A. Prior concrete floor testing results are provided in Table 2B. Results from the 76 floor surface samples (0 to 0.5 inches below grade) indicate PCB concentrations from non-detect to 110 ppm. Thirty-three of these samples were greater than one ppm. The samples with the highest concentrations were limited to the southern portion of the building in the mold storage portion of the Aluminum Foundry Room (Area 10), the western portion of the building near the Shared Loading Dock (Area 4) dividing CFC and Atlas Metalizing operations, and the Bronze Foundry Room (Area 14) shown on Figure 3. According to a past employee of the previous Site occupant, a second (newer) embossing machine was located in the Bronze Foundry Room (Area 14) along the east wall in the late 1970s to 1980s.

Samples from 0.5 to 1 inch below the floor surface were submitted for analysis at locations where PCB results for the surface samples (0-0.5 inches) were greater than 1 mg/Kg. The 0.5 to 1 inch sample from A-14-F-4 was not submitted because this location was coincident with test pit, TP-9, where the concrete was removed for test pit excavation. Results from the deeper samples show PCBs impacts are limited to the first half inch of the concrete floor at the locations tested with the exception of locations A-14-F-5 and A-14-F-18 on the east side of the Bronze Foundry Room (Area 14). At these locations, PCB concrete floor samples from the 0.5 to 1 inch interval exceeded the 1 mg/Kg unrestricted use criteria. According to the above referenced past employee, this second embossing machine was newer and did not leak like the former machine, which may be the reason, that soil samples collected from below the floor at these locations (along the east wall of the Bronze Foundry Room - Area 14) were non-detect for PCBs.

## Wall Sample Analysis

Laboratory reports for samples collected from the concrete walls are summarized on Table 3A. Prior results for wall testing are provided in Tables 3B and 3C. The greatest concentration of PCBs in wall samples (150-880 mg/Kg) was observed on the east side of the Cutting & Grinding Room (Area 12). Elevated PCB concentrations in wall samples from the Aluminum Foundry Room (Area 10) (west of the Cutting & Grinding Room - Area 12) and the Shared Loading Dock (Area 4) were also noted. Significantly lower concentrations of PCBs in wall samples (0.95-18 mg/Kg) were found in the Bronze Foundry Room (Area 14) to the east of the Cutting & Grinding Room (Area 12) and in other parts of the Site building. PCBs impacts were observed at the 4, 10, and 15 foot intervals up the wall in the Aluminum Foundry Room (Area 10), the Cutting & Grinding Room (Area 12) and the Bronze Foundry Room (Area 14). Data is summarized on Table 3A through 3C and sample locations are shown on Figure 4. In general, PCBs in wall

samples decreased slightly with increasing height on the wall. However, samples high on the wall still had elevated PCB concentrations even if they are somewhat lower than samples collected four feet off the floor.

# Ceiling Wipe Sample Analysis



Fifteen of the twenty ceiling wipe samples were submitted to the laboratory for PCB analysis. Ceiling wipe sample data are summarized on Table 4 and shown on Figure 5. Laboratory results indicated 13 of the 15 samples did not contain PCBs above the MRL. Sample A4-Ceil-1 from the ceiling in the Shared Loading Dock (Area 4) contained PCBs at  $0.8~\mu g/100~cm^2$  and sample A10-Ceil-1 in the Aluminum Foundry Room (Area 10) which is just west of the Oil Storage Room (Area 11) contained PCBs at  $0.5~\mu g/100~cm^2$ . Both of the detected PCB concentrations in wipe samples were below the criteria for unrestricted use.

## 5.6 EXPOSURE ASSESSMENT

Site characterization data collected to date indicate PCBs are present in soils and in building materials. However, the distribution of the PCBs and the nature of Site operations indicate exposure to Site workers and visitors is relatively low at this time.

Previous exterior soil remediation south of the Site building removed soils in proximity to the ground surface. Remaining soil impacts are found below the Site building, at depths several feet below grade and/or in areas not accessed by Site workers (i.e., the narrow, fenced alley north of the Oil Storage Room (Area 11) near the northern yard drain). Therefore, the exposure pathway for impacted soils is incomplete and the exposure risk from soils for Site workers and/or visitors is negligible at this time. We note that activities to address the elevated PCB concentrations are still necessary to meet the relevant regulatory criteria (see Section 4.0 and 5.1, above).

### Assessment of Atlas Space and Shared Loading Dock

Low level PCBs (up to 7 mg/Kg PCBs) were detected in concrete chip samples from floors in the Atlas area (Areas 1 and 3) and Shared Loading Dock (Area 4). The Shared Loading Dock (Area 4) is also used by Atlas workers and floor samples from the Shared Loading Dock (Area 4) contained PCBs at up to 4 mg/Kg. Paint/wall chip samples in the Atlas space (Areas 1 and 3) contained up to 12 mg/Kg PCBs but the paint in the Atlas space appears to be excluded PCB product with PCBs less than 50 mg/kg (generally PCB levels are less than 15 mg/kg in the Atlas space). Paint/wall chip samples in the Shared Loading Dock (Area 4) contained up to 58 mg/Kg PCBs. Atlas workers operate machines and load and unload materials in the shared loading dock wearing gloves and work clothes and do not, generally, come in direct contact with walls that contain elevated PCBs. Therefore, exposure risk is relatively low for Atlas workers considering current operations.

Additional floor wipe sampling was completed in January 2014 in the Shared Loading Dock space (Area 4) and the Atlas storage space and shop space (Area 1 and Area 3, respectively) to more fully assess surface concentrations of PCBs on floors. The additional floor wipe samples were collected because PCBs in floors appear to have been

tracked into the Shared Loading Dock (Area 4) and the Atlas spaces (Areas 1 and 3) from the Commercial Foundry side of the building. The floor wipe samples indicated compliance with porous surface criteria in TSCA (see further description of January 2014 floor wipe sampling below).

## Assessment of CFC Space



Although there are elevated concentrations of PCBs in the CFC space, exposure to workers when CFC was operational was considered minimal. The CFC operations, however, were terminated in July 2014. Prior to termination of operations, Mr. Voos indicated that CFC workers wore work gloves and boots, changed into work shoes and uniforms in the CFC employee locker rooms and left their work shoes and uniforms in lockers on the premises (they did not bring work clothes home). Workers typically did not come in contact with walls during routine industrial foundry operations and they showered after work and before leaving the Site. A portion of the floors in the Cutting & Grinding Room (Area 12), where the highest PCB concentrations were found during GZA's characterization, has been removed and replaced to eliminate potential worker exposure to the highest PCB concentrations in building materials. Also, floor areas in and just west of the Cutting & Grinding Room (Area 12) have been encapsulated with an epoxy coating to eliminate a potential exposure pathway to the next highest (remaining) concentrations of PCBs in concrete floors. However, we note that new data recently collected in July 2013 indicate elevated PCB concentrations in concrete floors in a small area at the southeastern portion of the Bronze Foundry Room (Area 14). The areas within the Bronze Foundry Room (Area 14) that have higher PCBs in floors will be addressed as part of the remedial plan that is being prepared for the Site. PCB concentrations in floors in other parts of the CFC portion of the building exhibit significantly lower concentrations of PCBs on the order of 1 to 10 mg/Kg.

As part of the characterization, and to better assess building occupant exposure scenarios, CFC requested GZA complete wipe sampling of walls and floors in and around the Cutting & Grinding Room (Area 12) (where the highest PCB concentrations in concrete chip samples were found) and indoor air testing in various rooms on the CFC side of the Site building. On March 22, 2011, seven wipe samples (four from walls and three from floors) and seven indoor air samples were collected by GZA. Results for the wipe samples are summarized in Tables 3C and 3D, respectively. Figure 4A indicates wipe and air sample locations in and around the Cutting & Grinding Room (Area 12) and Figure 4B indicates wipe and air samples away from the Cutting & Grinding Room (Area 12).

Certain wipe samples in the Cutting & Grinding Room (Area 12) had PCB concentrations above the 10 μg/100cm² PCB criteria for decontaminated and/or remediated surfaces allowed in the TSCA regulations (see Figures 4 and 4A). However, wipe sample PCB concentrations decreased rapidly to below 10 μg/100cm² away from the Cutting & Grinding Room (Area 12) where the highest PCBs were detected in concrete samples from walls and floors. Sample Wipe-7 (shown on Figure 4A) had 4.6 μg/100cm² PCBs while being in close proximity to a wall chip sample W-29 (collected 1 to 2 feet up the wall) that had 58 mg/Kg PCBs. The Wipe-1 sample had 7.8 μg/100cm² PCBs while being in close proximity to wall chip sample Paint 18 that had 150 mg/Kg PCBs. Wipe samples Wipe 21 and Wipe 25 through Wipe 29 had less than 10 μg/100cm² PCBs while being in close proximity to wall chip samples that contained between 380 and 3.4 mg/Kg PCBs. As such,

it appears that wipe samples indicate PCB concentrations are below TSCA regulatory criteria for most wall surfaces away from the Cutting & Grinding Room (Area 12). Laboratory reports for March 2011 wipe samples are included in Appendix C. To further evaluate the relationship between wall chip samples and wipe sample results, GZA proposed additional sampling.



In May 2011, GZA collected additional wall chip samples in the Aluminum Foundry Room (Area 10), the Oil Storage Room (Area 11), the Cutting & Grinding Room (Area 12) and the Bronze Foundry Room (Area 14) as shown on Figures 4 and 4A. At 10 of the chip sample locations, wall wipe samples were also collected. In general, wipe samples above the  $10~\mu g/100 cm^2$  PCB surface criteria were found in the Cutting & Grinding Room (Area 12) with wipe sample results ranging from 7.9 (sample WIPE-22) to 110 (WIPE-5)  $\mu g/100 cm^2$  PCBs, while wipe samples from other rooms (adjacent to the Cutting & Grinding room) were found to contain between 3.3 and  $12~\mu g/100 cm^2$  PCBs. The concentrations of PCBs in wall samples appear to vary over short distances and the variation may be due to uneven impacts to walls from machine oil mists or splatter (spills).

Indoor air testing results for seven locations in the CFC portion of the building indicated no PCBs detected (Table 3D). Three indoor air samples were collected in the Cutting & Grinding Room (Area 12) (Figure 4A) and four samples were collected west of the Cutting & Grinding Room (Area 12) but still within the CFC building space (Figure 4B). Laboratory reports for indoor air samples are included in Appendix C. Results indicate detection limits for the indoor air testing were below the OSHA and NIOSH recommended levels for PCBs in air in commercial/industrial settings. No exposure pathway by inhalation was identified by the indoor air data.

In addition to the above testing, GZA collected floor wipe samples from the Atlas tenant space storage room and shop (Area 1 and Area 3, respectively) and the shared loading dock (Area 4) on January 20, 2014. Wipe sample locations are shown on Figure 4C and floor wipe samples analytical reports are included in Appendix C. Three (3) floor wipe samples were collected on the floor of the shared loading dock near locations where concrete chip sampling had previously indicated the highest levels of PCBs in floor chip samples (1.5 to 3.9 mg/Kg PCBs in concrete) in this portion of the building. Fourteen (14) floor wipe samples were collected in the Atlas tenant spaces at new locations and immediately adjacent to previous concrete chip sample locations that had indicated PCBs in concrete floors between non-detected and 6.9 mg/Kg PCBs. One wipe sample from the shared loading dock (Area 4) contained 2.6 µg/100cm<sup>2</sup> PCBs. Three samples from the south side of the Atlas shop room (Area 3) contained 1.2 to 3.9 µg/100cm<sup>2</sup> PCBs and 2 samples from the Atlas storage room (Area 1) contained 1.1 to 1.5 µg/100cm<sup>2</sup> PCBs. The remaining 9 floor wipe samples from the Atlas storage room (Area 1) and shop (Area 3) did not have PCBs above laboratory detection limits. The results for the wipe samples indicate the surfaces tested were below the 10 µg/100cm<sup>2</sup> PCBs cleanup level for continued use of porous surfaces referenced in Section 761.61(a)(4) of the TSCA regulations (for Self-implementing remediation).

Based on the wipe sample results and indoor air sample results collected to date, risk to Site occupants and workers from PCBs in building materials is low.

### 6.0 QUALITY ASSURANCE/QUALITY CONTROL

Phoenix Environmental Laboratories performed the laboratory analyses for this project. The soil, wipe and building materials samples were extracted by Method 3540, Manual Soxhlet method, and analyzed for polychlorinated biphenyls by EPA Method 608/8082. Additional analyses performed (to address CT Transfer Act issues) included petroleum hydrocarbons, volatile organic compounds and semi-volatile organic compounds. Quality control procedures were adhered to as required by the method, and by CTDEEP Reasonable Confidence Protocols (RCPs). Laboratory data packages included the results of analyses of surrogate recoveries, laboratory control samples (LCS), duplicate LCS (LCSD), and field duplicate samples. Phoenix Environmental Laboratories additionally supplied a RCP QA/QC Certification Form and a Case Narrative explaining the results of all quality control procedures and techniques employed by the laboratory.



GZA performed a Data Quality Assessment and Usability Evaluation of the laboratory data. Based on this review of the reported data and laboratory quality control results, the data are found to be representative of Site conditions and are found to be useable as reported for the intended purpose of assessment of PCB concentrations. No significant quality control issues were apparent. GZA did not identify data that would have to be qualified in its use. QA/QC summaries for each laboratory report are tabulated and included as Appendix D.

In some samples, the laboratory reported a specific Aroclor as no longer recognizable due to weathering. This is denoted with an asterisk (\*) in the lab reports and the report tables. The lab reports note that in these cases PCB patterns most closely resemble Aroclor 1248 or a mixture of Aroclors 1248 and 1254.

Twelve duplicate samples were analyzed to evaluate data reproducibility. Samples with reported PCB concentrations were selected as duplicates. Eight samples had results that were within QC limits for duplicate samples. Four duplicate samples reportedly contained PCBs at varying levels, which is likely due to the heterogeneity of the sample matrices (soil, Orangeburg pipe) and the nature of the distribution patterns at the Site.

#### 7.0 CONCLUSIONS AND RECOMMENDATIONS

Additional assessment of exterior soils, below building soils, concrete floors, paint/walls and ceilings for PCB impacts was conducted by GZA to supplement previous Site characterization activities. The goal of the supplemental assessment was to sufficiently characterize PCBs at the Site so that a TSCA remedial action plan could be developed.

We note that Site characterization has been performed consistent with TSCA regulations to identify the distribution of PCBs in Site soils, groundwater and building materials so that a remedial plan can be developed.

At this time, a RAP is being developed for the Site that contemplates demolition of the CFC portion of the building.

# Exterior Soil PCB Impacts and Stormwater Piping Impacts

Exterior soil investigations indicated that low level PCB impacts from 0.45 to 2.6 mg/Kg are present in the vicinity of the stormwater catch basins north of the Oil Storage Room (Area 11). Data indicate the PCB impacts are limited to less than 4 feet below grade in the immediate vicinity of the catch basin closest to the building and are limited to less than a foot below ground surface away from the catchbasin. Surficial PCB impacts in this area have been defined by the recent sampling and analyses and the impacts do not extend off-Site. Also sediment in the catch basin had PCBs at 2.2 mg/Kg but a soil sample collected below the sediment at 2.75 to 3.0 feet below grade did not contain PCBs (ND<0.21 mg/Kg). Our investigation indicates the basin has discharge piping that connects to the storm water line running beneath interior the Bronze Foundry Room (Area 14) but also has a gravel bottom which allows some infiltration of storm water. Soil in the vicinity of the northern catch basin closest to the building will be addressed in the pending RAP. The impacted area appears to be on the order of 12 x 10 x 4 feet deep or approximately 16 to 20 cubic yards of soil.



Based on data from this study, the on-Site Orangeburg stormwater pipe and certain surrounding soils that remain in place south of the Site building between the building and the connection to the main municipal stormwater piping that is below South Street are impacted with PCBs. Testing of a piece of the degraded Orangeburg pipe from below the Site building (Bronze Foundry Room - Area 14) indicated a maximum concentration of 6,100 mg/Kg PCBs in the pipe. Testing of downstream piping south of the building indicated a maximum PCB concentration of 37,000 mg/Kg for exterior stormwater piping. Soils beneath the stormwater piping (1960s Orangeburg pipe) south of the building had up to 30 mg/Kg PCBs. The soil sample with 30 mg/Kg PCBs was collected from under a stormwater "T" connection below the sidewalk. We also note that a sediment sample collected in December 2011 from inside an abandoned floor drain pipe in the Cutting & Grinding Room (Area 12) (during the limited interior source removal excavation) contained 47,200 mg/Kg PCBs and analytical results indicate the sediment sample, the Orangeburg pipe samples and the surrounding soil samples from the floor drain and stormwater systems contained PCBs reported as Aroclor 1248. The common Aroclor content of the samples suggests a common source.

A 2002 zoning location survey map for the Site, which is based upon a September 1993 A-2 survey by Juliano Associates, indicates the Site boundary is the northern edge of the sidewalk along South Street. PCB impacts are known to extend off the Site under the sidewalk to the south based on the available information that identifies the southern property boundary.

# Soil PCB Impacts Below Buildings

Based on results for Orangeburg pipe testing, PCB impacts to the Orangeburg stormwater piping and surrounding soils below the floor in the Bronze Foundry Room (Area 14) will require corrective action. Soil impacts in the vicinity of the Orangeburg pipe ranged from non-detected to 710 mg/Kg. The impacts around the Orangeburg pipe appear to be concentrated at locations where the older pipe was broken and also appear limited to a corridor that is 3 to 4 feet wide (from the building wall) and less than 4 feet deep. We estimate the total soil volume in this area that may require remediation to be approximately

115 x 4 x 4 feet deep or approximately 65 to 75 cubic yards. However, confirmation testing may indicate some soils along this corridor do not contain actionable concentrations of PCBs. Based on the data collected to date for soils below the floor of the Bronze Foundry Room (Area 14), it is GZA's opinion that additional soil testing is not warranted.

Sub-slab soil samples from the Atlas Metalizing area did not contain PCBs above the MRL and no PCB releases to soils below the Atlas tenant space have been identified. We do not anticipate corrective action will be required for the Atlas tenant space to address TSCA requirements. However, we note that corrective action will be required under the CT Property Transfer Act requirements to address petroleum releases to below floor soil under the Atlas tenant space. Also, concrete floors and walls in the Atlas space are impacted by PCBs as noted below.



# Concrete Floor PCB Impacts

New data for concrete floors east and west of the Oil Storage Room (Area 11) and Cutting & Grinding Room (Area 12) indicate PCB impacts to floors are adequately characterized. PCB impacts above the 1 mg/Kg TSCA unrestricted use criteria are found in the upper half inch of concrete in the majority of locations in the Site building west of the Cutting & Grinding Room (Area 12) (including the Atlas tenant space). Floor samples west of the Oil Storage Room (Area 11)/Cutting & Grinding Room (Area 12) collected from 0.5 to 1 inch deep (second sample depth) did not contain PCBs above 1 mg/Kg. Based on the data patterns, it appears PCBs in concrete floors west of the Cutting & Grinding Room (Area 12) may be a result of tracking of PCBs from the Oil Storage Room (Area 11)/Cutting & Grinding Room (Area 12).

Concrete floors in Area 13 (Compressor Room) and at the north and west sides of the Bronze Foundry Room (Area 14) (Bronze Foundry Room) do not appear to be impacted with PCBs above the 1 mg/Kg regulatory criteria except for a limited area at the southeastern portion of the Bronze Foundry Room (Area 14). Impacts in the Bronze Foundry Room (Area 14) at sample locations A-14-F-5 and A-14-F-18, (southeast corner of the Bronze Foundry Room - Area 14) extend at least one inch into the floor based on the available data. A second, newer, former embossing machine was located in the vicinity of location A-14-F-18. The newer embossing machine did not leak like the old machine according to a past employee interviewed by GZA. The PCB impacts noted in the Bronze Foundry Room (Area 14) could be from tracking or from storage of PCB machine oils in this area.

No hot spots or high-concentration areas have been detected to-date for areas west of the Oil Storage Room (Area 11)/Cutting & Grinding Room (Area 12) and impacts at the 0.5 to 1.0 inch depth in floors in the western part of the Site building are less than 1 mg/Kg PCBs (based on available data). However, PCB impacts to floors in the eastern portion of the Bronze Foundry Room (Area 14) are somewhat higher and complete floor removal may be required for the highest concentrations of PCBs in floor in the Bronze Foundry Room (Area 14).

The concrete floors in the Cutting & Grinding Room (Area 12) and Oil Storage Room (Area 11) appear to have the highest concentrations of PCBs (up to 720 mg/Kg). We note that a portion of the Cutting & Grinding Room (Area 12) floor with higher concentrations

of PCBs was previously remediated in December 2011 and replaced with a new floor. Previous testing results indicate certain deeper floor samples (excluding the new floor) collected at 0.5 to 1 inch below the surface in the Cutting & Grinding Room (Area 12) contain elevated PCBs above 1 mg/Kg.

## Wall/Paint PCB Impacts



Supplemental testing of paint/wall samples has indicated the highest concentrations of PCBs to be in the Cutting & Grinding Room (Area 12) and Oil Storage Room (Area 11), with moderate to higher levels of PCBs in the Aluminum Foundry Room (Area 10) and the Shared Loading Dock (Area 4) and lower PCB concentrations in other parts of the building.

PCB concentrations in paint/wall samples from the Shared Loading Dock (Area 4) (sample A4-PW-2), the Aluminum Foundry Room (Area 10) (several samples) and the Cutting & Grinding Room (Area 12) (many samples) exceed 50 mg/Kg and appear to be related to the release of machine oils in the Cutting & Grinding Room (Area 12). Likewise, paint/wall samples in the Oil Storage Room (Area 11) appear elevated and related to the PCB bearing machine oil releases from the embossing machine formerly in the Cutting & Grinding Room (Area 12) (possibly by misting of machine oils). PCBs in the walls of the Shared Loading Dock (Area 4) may be from handling of machine oils in this area during shipping and receiving of virgin or waste oils. As such the walls in the Shared Loading Dock (Area 4), the Aluminum Foundry Room (Area 10) and the Cutting & Grinding Room (Area 12) may require remediation under TSCA.

In Bronze Foundry Room (Area-14), PCBs were detected in wall samples up to 18 mg/Kg. It is possible a second former embossing machine was located in the Bronze Foundry Room (Area-14) and misting from this second embossing machine caused the PCBs impacts to walls in this area.

Other walls of the Site building also contain PCBs but at levels that do not exceed 50 mg/Kg. Typically these walls contain PCBs at 10 to 15 mg/Kg.

Although it is possible that walls away from machine oil releases contain PCBs from paint that was historically applied to walls prior to CFC occupancy, it is also possible that misting of oil from the embossing machine impacted other walls in the Site building but to a lesser degree than impacts found in the Shared Loading Dock, the Aluminum Foundry Room and the Cutting & Grinding Room (Areas 4, 10 and 12, respectively). Paint on walls away from Areas 4, 10 and 12 could potentially be considered "excluded PCB product" that would not require remediation under the TSCA program, however, the data collected to date at the Site does not provide a clear means for separating impacts from embossing machine oils from PCBs in paint (we note that PCB Aroclors detected in wall samples away from the embossing machine locations were similar to those detected in the Cutting & Grinding Room (Area 12) but also similar to that found in some paints containing PCBs). Regardless of the source of PCBs in wall samples, appropriate disposal of wall materials in a manner consistent with TSCA regulations is required when the building walls are demolished. Disposal options for excluded PCB products (i.e., paint originally manufactured with PCBs greater than 1 mg/kg but less than 50 mg/kg) and PCB

remediation waste (surfaces with 1 mg/kg or greater PCBs that were impacted from a spill of material with greater than 50 mg/kg PCBs) will be outlined in the RAP.

# Ceiling PCB Impacts



Ceiling wipe samples with PCBs greater than the unrestricted use criteria of  $10~\mu g/100~cm^2$  for non-porous surfaces were not detected in the Site building. Since the surface of the ceiling in Cutting & Grinding Room (Area 12) and Aluminum Foundry Room (Area 10) (where ceiling samples were collected and analyzed) is steel decking, wipe sampling of the surface was the appropriate method of testing to characterize ceilings. Minor PCB impacts of less than  $1~\mu g/100~cm^2$  were detected in two ceiling samples; one ceiling sample with detected PCBs was in the Cutting & Grinding Room (Area 12) and one sample was in the Aluminum Foundry Room (Area 10) just west of the Cutting & Grinding Room (Area 12). De minimis PCB impacts to ceilings in the areas with the highest soil, floor and wall PCB impacts suggests that ceilings are not significantly impacted and do not require remediation for PCBs. No further characterization is recommended for ceiling in the Site building.

#### 7.1 UPDATED CONCEPTUAL SITE MODEL

New data obtained during this study was used to update the CSM for the Site. The release mechanism for PCBs that have impacted the building interior and Site soils remains essentially the same: historical surficial spillage, handling or possibly misting of machine oils for the former embossing machine has led to PCB impacts in the Cutting & Grinding Room (Area 12), the Oil Storage Room (Area 11), the Shared Loading Dock (Area 4), the stormwater piping at the east end of the Site and possibly floors and below floor soils in the southern portion of the Bronze Foundry Room (Area 14). The former embossing machine located in the Cutting & Grinding Room (Area 12) (and possibly a second embossing machine in the southern half of the Bronze Foundry Room - Area 14) used heated oil in liquid filled rollers for thin film embossing. The embossing machine was likely located along the east wall of the Cutting & Grinding Room (Area 12) based on the distribution of PCBs in concrete floor and wall samples and below floor soil samples. In addition, PCB-bearing oils may also have been stored in the Oil Storage Room (Area 11) and the Shared Loading Dock (Area 4) where they could have been spilled to the floor during routine handling of drummed oils. Concrete floor data for the southern portion of the Bronze Foundry Room (Area 14) indicates possible use or handling of PCB bearing machine oils and possibly the location of a second embossing machine. GZA notes, groundwater has been tested for PCBs and no PCBs were detected in groundwater.

### Cutting and Grinding Room Sub-Slab Soils

PCBs from the former embossing machine or from storage of PCB-bearing oils appear to have migrated below the concrete floor slab. Seams where the floor slabs meet the foundation walls appear to be a pathway for surface spills to migrate into soils beneath the floor slab. Areas of heavy staining were observed below the floor on the east foundation wall at the south end of the remedial excavation and PCB-bearing oils appear to have spread into soils around the foundation wall and footing. Site soils are dense and relatively impermeable (glacial till with significant silt and clay) and PCBs are relatively immobile in dense soil. However, soils in the immediate vicinity (within approximately one to two feet) of building

foundation walls and footings are more permeable fill material. Because of these characteristics, no significant migration of PCB impacts seemed to have occurred in the subslab soils other than in the vicinity of foundation walls and footings.

#### Storm Drain System



A sample of sediment collected from inside an abandoned floor drain pipe at the north end of the previous interior, below-floor, soil remediation area in the Cutting & Grinding Room (Area 12), indicates PCB releases infiltrated the floor drain system below the Cutting & Grinding Room (Area 12). Floor drains in the Cutting & Grinding Room (Area 12) and adjacent the Bronze Foundry Room (Area 14) formerly discharged to a north-south running 1960s Orangeburg stormwater pipe located beneath the floor slab in the Bronze Foundry Room (Area 14). The currently inactive 1960s Orangeburg pipe beneath the building is part of a former stormwater system. The 1960s Orangeburg pipe is approximately six inches to one foot from the west wall of the Bronze Foundry Room (Area 14) and appears to exit the west wall of the building at the south end of the Bronze Foundry Room (Area 14). Based upon test pits and borings along the west wall of the Bronze Foundry Room (Area 14), it appears portions of the Orangeburg pipe (below the building) were destroyed or removed and are no longer present. Interior soil results from above and below the Orangeburg piping and samples of the pipe material indicate PCBs have impacted the pipe and soils around the pipe. A sample of the Orangeburg pipe contained PCBs at 6,100 mg/Kg. However, soil impacts near the Orangeburg pipe appear to be limited in depth and are in close proximity to the drain pipe. Three samples (A-14-S-18, A-14-S-19, and A-14-S-20) collected at the depth of the building footing at approximately 4 feet below grade, did not contain PCBs. Based on these data, PCB impacts do not appear to extend below the building footing in the Bronze Foundry Room (Area 14) in the vicinity of the abandoned Orangeburg pipe.

Once outside the building, the 1960s Orangeburg pipe ran generally parallel to the building's south wall for approximately 145 feet until it turned south and connected to the older municipal stormwater line below South Street.

The 1960s Orangeburg pipe beneath the building received floor drain discharges and stormwater until the early 1970s when a new 8-inch diameter cast iron storm drain line (iron drain line) was installed four to five feet east of the 1960s Orangeburg pipe as part of the construction of the eastern-most building addition. At the time of the iron drain line installation, the Cutting & Grinding Room (Area 12) floor drains were extended to the new cast iron storm drain pipe and disconnected from the 1960s Orangeburg drain line. The new the Bronze Foundry Room (Area 14) floor drains were connected to the iron drain line at the time the addition was constructed in 1972.

The 1972 iron drain line was installed beneath the building, exited the building at the southwest corner of the Bronze Foundry Room (Area 14) and extended approximately three feet away from the building, at which point Orangeburg pipe was installed. The 1972 Orangeburg pipe ran another 50 feet to a catchbasin on South Street located south of the currently fenced in area where the CFC dust collectors are located (see Figure 2A and 2C). After exiting the building, Orangeburg pipe was used instead of iron pipe, which is consistent with building practices and codes in the 1970s according to ESI staff experienced in sewer pipe installation. Therefore, in 1972, the stormdrain line from three feet out of the building to the South Street catchbasin (now abandoned) was Orangeburg pipe (as observed in TP-11 and

TP-14). Stormwater entering the former South Street catchbasin is inferred to have flowed to the older municipal stormwater line below South Street.

It appears that the iron drain pipe under the Bronze Foundry Room (Area 14) and the 1972 Orangeburg pipe discharged stormwater and floor drain water into the former catch basin connected to the older municipal storm line from 1972 to at least 1989 (date of construction of a new municipal storm line beneath South Street) or until 1993 (date when a new transformer was installed for CFC). At the time the new transformer was installed in 1993, the active stormwater drain was re-routed from the south end of the 1972 iron drain line back into the exterior portion of the existing 1960s Orangeburg stormdrain line, thereby still discharging into the older storm line below South Street.



During the entire period that the embossing machines using PCB-bearing oils were in operation, stormwater and floor drain water would have discharged into the stormwater lines below South Street, either through the original 1960s Orangeburg pipe or through the 1972 iron drain line and Orangeburg pipe The floor drains were sealed prior to CFC acquiring the building in 1993; however, stormwater (primarily from roof drains and two area drains to the north of the building) continues to flow through the 1972 iron drain pipe.

The end of the iron drain line is connected to the 1960s Orangeburg pipe by a short (22 foot) length of PVC pipe routed around the north side of the current transformer vault. The 1960s Orangeburg piping runs approximately 115 feet to the west where it connects to a clay pipe at a "T" joint. The clay pipe comes out from under the middle of the CFC building and runs to the south to the municipal stormline beneath South Street. Piping orientation is shown on Figures 2A and 2C.

Testing of a piece of the degraded Orangeburg pipe from below the Site building (the Bronze Foundry Room - Area 14) indicated 6,100 mg/Kg PCBs. A sample of exterior piping downstream of the building contained 37,000 mg/Kg PCBs. Soils beneath the stormwater piping (1960s Orangeburg pipe) south of the building had up to 30 mg/Kg PCBs; this soil sample was collected from below the stormwater "T" connection at the clay pipe.

PCBs were detected at 2.6 mg/Kg in one exterior surficial soil sample north of the Site building at location EXT-5 which is north of the Oil Storage Room (Area 11) and near a catch basin. A sample of catch basin sediment adjacent to EXT-5 was found to contain PCBs at 2.2 mg/Kg and a sample from below the sediment in the catchbasin was non-detect for PCBs. Samples to the east of EXT-5 contained PCBs up to 1.2 mg/Kg and a sample south of the catchbasin (EXT-9) had PCBs at 1.2 mg/Kg. The sample north of the catchbasin (EXT-8) did not contain PCBs. PCBs north of the building appear limited to shallow soils less than one foot below the surface, except in the immediate vicinity of the catchbasin where impacts are less than four feet below grade. PCBs in catchbasin sediments and shallow surface soils north of the Oil Storage Room (Area 11) may be due to discharge from a former sink inside the Oil Storage Room (Area 11) or from excavation of the 1960s Orangeburg pipe when it was replaced with the 1972 iron drain pipe.

### PCBs in Walls

Data collected as part of the March 2011 Interior PCB Characterization Report indicate embossing machine operations and/or oil handling appear to have resulted in PCB impacts to the walls of the Cutting & Grinding Room (Area 12) and Oil Storage Room (Area 11). The highest PCB impacts to wall samples in the Cutting & Grinding Room (Area 12) and Oil Storage Room (Area 11) are adjacent to the highest PCB concentrations in concrete floors and below floor soil samples. A second embossing machine was likely located in the Bronze Foundry Room (Area-14), where additional PCB wall impacts were identified.



Wall/paint samples with elevated PCBs were also found in the Aluminum Foundry Room (Area 10), adjacent to and west of the Cutting & Grinding Room (Area 12) and in samples from the walls of the Shared Loading Dock (Area 4). These impacts extend up to 15 feet above the floor. Wall impacts away from the Cutting & Grinding Room (Area 12) are inferred to indicate handling of machine oils or misting of machine oils used in the embossing machines.

In general, PCB concentrations are lower in samples further from the Cutting & Grinding Room (Area 12) which supports a release mechanism that includes the misting of PCB-bearing machine oils from the former embossing machine in the Cutting & Grinding Room (Area 12) when it was operating.

The two elevated paint/wall samples (A4-PW-3 at 29 mg/Kg and A4-PW2 at 58 mg/Kg) in the Shared Loading Dock (Area 4) may be attributed to historic oil handling and storage practices during shipping and receiving of embossing machine oils. Handling of PCB-bearing machine oils at the shared loading dock is consistent with exterior soil characterization and remediation. We note that significant PCB-related soil remediation was completed by GZA immediately outside the shared loading dock in 2009.

### PCBs In Floors

PCBs spilled in the Cutting & Grinding Room (Area 12) and Oil Storage Room (Area 11) also appear to have been tracked into the room to the west (current Aluminum Foundry Room – Area 10) and other rooms west of the Cutting & Grinding Room (Area 12). PCB impacts above 1 mg/Kg appear to be limited to the top half inch of the floor where tracking has occurred. PCB impacts in the Bronze Foundry Room (Area-14) are likely from the use of a second embossing machine that was in operation in Area-14 prior to CFC occupying the building.

According to past employees, a second, newer embossing machine was located in the Bronze Foundry Room (Area 14) in the mid-1970s. Based upon the detected concentrations of PCBs it is likely the machine was located along the eastern wall of the Bronze Foundry Room (Area 14) in the vicinity of sample location A-14-F18 which had the highest PCB impacts. We note that soil samples collected beneath the concrete floor samples that had the highest PCB results were non-detect for PCBs. The most recent concrete floor sampling results also indicate PCBs were detected on the southeastern side of the Bronze Foundry Room (Area 14). PCBs were detected in 13 floor samples from the 0-0.5 inch interval (ranging from 0.34 mg/Kg to 110 mg/Kg); 7 of these samples exceeded the 1 mg/Kg unrestricted use criteria. Floor samples from the 0.5 to 1 inch interval were submitted

for the 7 samples from the 0-0.5 inch interval that were greater than 1 mg/Kg. PCBs were detected in four of the deeper samples (0.43 mg/Kg to 83 mg/Kg); two of these samples exceeded the 1 mg/Kg unrestricted use criteria.

### PCBs In Ceilings



PCBs in ceilings were assessed by first testing locations proximal to highest levels of PCBs in floor and wall samples which are found in the Cutting & Grinding Room (Area 12). Since misting appeared to be the primary mechanism for PCBs in walls, and data trends of higher concentrations closer to the Cutting & Grinding Room (Area 12) were observed, the highest PCB impacts to ceilings would be found in the Cutting & Grinding Room (Area 12). Ceiling samples in the shared loading dock and in the Aluminum Foundry Room (Area 10) were also collected and analyzed since these areas also had elevated levels of PCBs in floor samples. PCBs impacts to ceilings appear to be minimal and the samples analyzed were below regulatory criteria. PCB impacts to ceilings are not above the unrestricted use levels in TSCA regulations and no further characterization of ceilings is warranted.

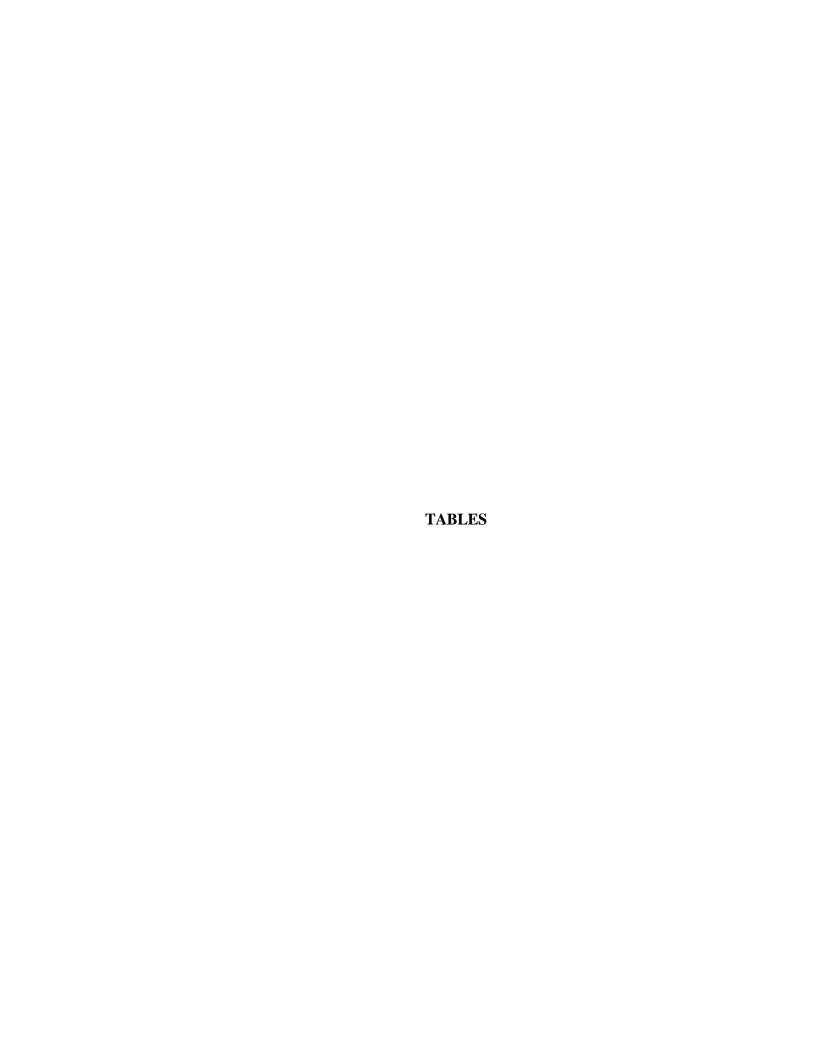
### PCBs In Floor Wipe Samples

Floor wipe samples collected in January 2014 in the Shared Loading Dock (Area 4) and the Atlas Storage Area (Area 1) and Atlas Shop Area (Area 3) did not contain PCBs above the TSCA criteria for porous surface ( $10 \,\mu g/100 cm^2$ ) at the seventeen locations that were tested. The wipe samples results indicate a relatively low risk of exposure for Site workers from PCBs in concrete floors in these areas of the building.

### 8.0 LIMITATIONS

Our Site evaluation was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area, and we observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. This assessment is subject to the Limitations presented in Appendix A.

This report has been prepared on behalf of and for the exclusive use of the FDIC as Receiver for Citytrust Bank solely for use in an environmental evaluation of the Site. This report and findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without our prior written consent. However, GZA acknowledges and agrees that the report may be conveyed to the EPA, CTDEEP, the Commercial Foundry Companies, and the FDIC's consultants. GZA's aggregate liability to all parties who may come to rely on this report is limited to the amount set forth in the Terms and Conditions of our contract and is not hereby expanded. No other warranty, express or implied, is made



# TABLE 1A INTERIOR/EXTERIOR SOIL PCB RESULTS 326 South Street New Britain, CT

Room	Sample ID	Material	Depth Below Surface of Floor (feet)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	Total PCBs
Area 12-CGR	A12-S-1	Soil	2.5-2.75	12/26/2012	mg/kg	0.38	1	ND	ND	ND	ND	ND	ND
Area 12-CGR	A12-S-1	Soil	4.75-5.0	12/26/2012	mg/kg	0.39	1	ND	ND	ND	ND	ND	ND
Area 12-CGR	A12-S-1	Soil	5.75-6.0	12/26/2012	mg/kg	0.39	1	ND	ND	ND	ND	ND	ND
Area 12-CGR	A12-S-2	Soil	2.5-2.75	12/26/2012	mg/kg	0.37	1	ND	ND	ND	ND	ND	ND
Area 12-CGR	A12-S-2	Soil	4.75-5.0	12/26/2012	mg/kg	0.41	1	*	ND	ND	ND	ND	1
Area 12-CGR	A12-S-2	Soil	5.75-6.0	12/26/2012	mg/kg	0.39	1	ND	ND	ND	ND	ND	ND
Area 12-CGR	A12-S-3	Soil	2.5-2.75	12/26/2012	mg/kg	0.37	1	ND	ND	ND	ND	ND	ND
Area 12-CGR	A12-S-3	Soil	4.75-5.0	12/26/2012	mg/kg	0.41	1	ND	ND	ND	ND	ND	ND
Area 12-CGR	A12-S-3	Soil	5.75-6.0	12/26/2012	mg/kg	0.38	1	ND	ND	ND	ND	ND	ND
Area 12-CGR	A12-S-4	Soil	2.5-2.75	12/26/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
Area 12-CGR	A12-S-4	Soil	3.5-3.75	12/26/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
Area 12-CGR	A12-S-5	Soil	2.5-2.75	12/26/2012	mg/kg	0.38	1	ND	ND	ND	ND	ND	ND
Area 12-CGR	A12-S-5	Soil	3.5-3.75	12/26/2012	mg/kg	0.42	1	ND	ND	ND	ND	ND	ND
Area 12-CGR	A12-S-6	Soil	2.5-2.75	12/26/2012	mg/kg	0.35	1	ND	ND	ND	ND	ND	ND
Area 12-CGR	A12-S-6	Soil	3.5-3.75	12/26/2012	mg/kg	0.39	1	ND	ND	ND	ND	ND	ND
In or Below Orangeburg Pi Area 14-Bronze Foundry	pe A14-S-4	Soil	2.5-2.75	12/24/2012	mg/kg	39	1	*	ND	ND	ND	ND	420
Area 14-Bronze Foundry	A14-S-4 (dup)	Soil	2.5-2.75	12/24/2012		40	1	490	ND ND	ND ND	ND ND	ND ND	420
Area 14-Bronze Foundry	A14-S-4 (dup)	Soil	2.75-3.0	12/24/2012	mg/kg	0.076	1	* *	ND ND	ND	ND ND	ND ND	1
Area 14-Bronze Foundry	A14-S-13	Soil	3.5-3.75	12/24/2012	mg/kg	210	1	*	ND ND	ND	ND ND	ND ND	710
Area 14-Bronze Foundry	A14-S-13 (dup)	Soil	3.5-3.75	12/24/2012	mg/kg	200	1	570	ND ND	ND	ND ND	ND ND	570
Area 14-Bronze Foundry Area 14-Bronze Foundry	` 1/	Soil	2.25-2.5		mg/kg		1	ND	ND ND	ND ND	ND ND	ND ND	ND
,	A14-S-14	Soil	3.0-3.25	12/26/2012	mg/kg	0.4 1.8	1	ND *	ND ND	ND ND	ND ND	ND ND	24
Area 14 Bronze Foundry	A14-S-16 A14-S-17	Soil	3.0-3.23	12/26/2012 12/26/2012	mg/kg	0.37	1	*	ND ND	ND ND	ND ND	ND ND	2.9
Area 14-Bronze Foundry					mg/kg		1	*					
Area 14-Bronze Foundry	Orangeburg Pipe	Pipe	2.5-2.75	12/24/2012	mg/kg	470	1		ND	ND	ND	ND	6,100 1,300
Area 14-Bronze Foundry Above Orangeburg Pipe	Orangeburg Pipe (dup)	Pipe	2.5-2.75	12/24/2012	mg/kg	470	1	1300	ND	ND	ND	ND	1,300
Area 14-Bronze Foundry	A14-S-3	Soil	1.5-1.75	12/24/2012	mg/kg	0.072	1	ND	ND	ND	ND	ND	0.35
Area 14-Bronze Foundry	A14-S-12	Soil	2.75-3.0	12/24/2012	mg/kg	0.076	1	*	*	ND	ND	ND	0.12
Area 14-Bronze Foundry	A14-S-15	Soil	2.75-3.0	12/26/2012	mg/kg	0.39	1	*	ND	ND	ND	ND	1.9
Below 8-inch Iron Pipe												•	
Area 14-Bronze Foundry	A14-S-1	Soil	2.5-2.75	12/22/2012	mg/kg	0.38	1	*	ND	ND	ND	ND	0.9
Area 14-Bronze Foundry	A14-S-2	Soil	2.5-2.75	12/22/2012	mg/kg	0.39	1	ND	ND	ND	ND	ND	ND
Area 14-Bronze Foundry	A14-S-6	Soil	2.5-2.75	12/24/2012	mg/kg	0.076	1	*	ND	ND	ND	ND	0.63
Area 14-Bronze Foundry	A14-S-7	Soil	2.5-2.75	12/24/2012	mg/kg	0.079	1	ND	ND	ND	ND	ND	ND
Area 14-Bronze Foundry	A14-S-8	Soil	2.75-3.0	12/24/2012	mg/kg	0.077	1	*	ND	ND	ND	ND	0.15
Area 14-Bronze Foundry	A14-S-9	Soil	2.5-2.75	12/24/2012	mg/kg	0.079	1	*	*	ND	ND	ND	0.94
Area 14-Bronze Foundry	A14-S-11	Soil	2.75-3.0	12/24/2012	mg/kg	0.75	1	*	*	ND	ND	ND	4.1
Area 14-Bronze Foundry	A14-S-21	Soil	2.75-3.0	12/26/2012	mg/kg	0.38	1	ND	ND	ND	ND	ND	ND
Above 8-inch Iron Pipe					<u> </u>								
Area 14-Bronze Foundry	A14-S-10	Soil	1.5-1.75	12/24/2012	mg/kg	0.73	1	*	*	ND	ND	ND	5.5
At Depth of Building Wall													
Area 14-Bronze Foundry	A14-S-18	Soil	4.0-4.25	12/26/2012	mg/kg	0.39	1	ND	ND	ND	ND	ND	ND
Area 14-Bronze Foundry	A14-S-18	Soil	5.0-5.25	12/26/2012	mg/kg	0.39	1	ND	ND	ND	ND	ND	ND
Area 14-Bronze Foundry	A14-S-18	Soil	5.75-6.0	12/26/2012	mg/kg	0.37	1	ND	ND	ND	ND	ND	ND
Area 14-Bronze Foundry	A14-S-19	Soil	4.0-4.25	12/26/2012	mg/kg	0.41	1	ND	ND	ND	ND	ND	ND
Area 14-Bronze Foundry	A14-S-19	Soil	5.0-5.25	12/26/2012	mg/kg	0.4	1	ND	ND	ND	ND	ND	ND
Area 14-Bronze Foundry	A14-S-20	Soil	4.0-4.25	12/26/2012	mg/kg	0.42	1	ND	ND	ND	ND	ND	ND
Area 14-Bronze Foundry	A14-S-20	Soil	5.0-5.25	12/26/2012	mg/kg	0.4	1	ND	ND	ND	ND	ND	ND

# TABLE 1A INTERIOR/EXTERIOR SOIL PCB RESULTS 326 South Street New Britain, CT

Room	Sample ID	Material	Depth Below Surface of Floor (feet)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	Total PCBs
North Exterior	EXT-1	Soil	0.5-0.75	12/26/2012	mg/kg	0.41	1	ND	ND	ND	ND	ND	ND
North Exterior	EXT-2	Soil	0.5-0.75	12/26/2012	mg/kg	0.37	1	ND	ND	ND	ND	ND	ND
North Exterior	EXT-3	Soil	0.5-0.75	12/26/2012	mg/kg	0.37	1	ND	ND	ND	ND	ND	ND
North Exterior	EXT-4	Soil	0.5-0.75	12/26/2012	mg/kg	0.4	1	ND	ND	ND	ND	ND	ND
North Exterior	EXT-5	Soil	0.5-0.75	12/26/2012	mg/kg	0.39	1	*	*	ND	ND	ND	2.6
North Exterior	EXT-6	Soil	0.0-0.25	7/2/2013	mg/kg	0.26	1	ND	1.2	ND	ND	ND	1.2
North Exterior	EXT-6	Soil	0.25-0.5	7/2/2013	mg/kg	0.36	1	0.97	ND	ND	ND	ND	0.97
North Exterior	EXT-7	Soil	0.0-0.25	7/2/2013	mg/kg	0.27	1	ND	0.78	ND	ND	ND	0.78
North Exterior	EXT-8	Soil	0.5-0.75	7/2/2013	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
North Exterior	EXT-9	Soil	0.5-0.75	7/2/2013	mg/kg	0.2	1	ND	1.2	ND	ND	ND	1.2
North Exterior	EXT-9	Soil	0.75-1.0	7/2/2013	mg/kg	0.39	1	ND	ND	ND	ND	ND	ND
North Exterior	EXT-10	Soil	0.25-0.5	7/2/2013	mg/kg	0.2	1	ND	0.45	ND	ND	ND	0.45
North Exterior	EXT-10	Soil	1.75-2.0	7/2/2013	mg/kg	0.4	1	ND	ND	ND	ND	ND	ND
North Exterior	EXT-10	Soil	2.75-3.0	7/2/2013	mg/kg	0.38	1	ND	ND	ND	ND	ND	ND
North Exterior	Catch Basin	Sediment	NA	12/26/2012	mg/kg	0.5	1	*	*	ND	ND	ND	2.2
North Exterior	Catch Basin North	Soil	2.75-3.0	7/2/2013	mg/kg	0.21	1	ND	ND	ND	ND	ND	ND
1960s Orangeburg Pipe	Orange-1	Orangeburg Pipe	NA	7/1/2013	mg/kg	2,100	1	23,000	ND	ND	ND	ND	23,000
1960s Orangeburg Pipe	Orange-1 (rerun)	Orangeburg Pipe	NA	7/1/2013	mg/kg	2,100	1	14,000	ND	ND	ND	ND	14,000
1960s Orangeburg Pipe	Orange-1 (dup)	Orangeburg Pipe	NA	7/1/2013	mg/kg	25,000	1	37,000	ND	ND	ND	ND	37,000
1972 Orangeburg Pipe	Orange-2	Orangeburg Pipe	NA	7/1/2013	mg/kg	9.6	1	110	ND	ND	ND	ND	110
1960s Orangeburg Pipe	Orange-3	Orangeburg Pipe	NA	7/1/2013	mg/kg	1.6	1	19	ND	ND	ND	ND	19
1960s Orangeburg Pipe	EXT-101	Soil	4.5-4.75	1/10/2013	mg/kg	0.4	1	ND	ND	ND	ND	ND	ND
1960s Orangeburg Pipe	EXT-102	Soil	Below Orangeburg Pipe	7/1/2013	mg/kg	3.9	1	30	ND	ND	ND	ND	30
1960s Orangeburg Pipe	EXT-103	Soil	Below Sewer Line	7/1/2013	mg/kg	0.4	1	ND	ND	ND	ND	ND	ND
1960s Orangeburg Pipe	EXT-104	Soil	Below Orangeburg Pipe	7/2/2013	mg/kg	0.21	1	ND	ND	ND	ND	ND	ND
1972 Orangeburg Pipe	EXT-105	Soil	Below Orangeburg Pipe	7/2/2013	mg/kg	0.2	1	1.8	ND	ND	ND	ND	1.8
1972 Orangeburg Pipe	EXT-106	Soil	4-4.25	7/2/2013	mg/kg	0.2	1	ND	ND	ND	ND	ND	ND
								•		•		•	•
CFC Bronzing Room	A-14-S-22	Soil	0.0-0.25	7/2/2013	mg/kg	0.36	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A-14-S-23	Soil	0.0-0.25	7/2/2013	mg/kg	0.36	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A-14-S-24	Soil	0.0-0.25	7/2/2013	mg/kg	0.35	1	ND	ND	ND	ND	ND	ND
Notes:	~ - :	**	•		O' O		-		,				

- 1. Samples were collected by GZA GeoEnvironmental, Inc. December 22, 24, and 26, 2012 and January 10, 2013
- 2. Samples were analyzed by Phoenix Environmental Laboratory, Inc. in Manchester, CT.
- 3. Regulatory Criteria refers to TSCA threshold for bulk remediation waste.

- 4. Shaded and bold analysis exceed the TSCA limit for unrestricted use at a PCB release area.
- 5. ND = Not detected above the laboratory reporting limit for this compound.
- 6. "\*" indicates individual Aroclors could not be determined.

### TABLE 1B PREVIOUS INTERIOR/EXTERIOR SOIL PCB RESULTS

### 326 South Street New Britain, CT

Room	Sample ID	Material	Depth Below Surface of Floor (feet)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	Total PCBs
CFC Grinding Room	S-11-S1	Soil	0.75-1.0	12/28/2010	mg/kg	0.37	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-19-S1	Soil	0.75-1.0	12/29/2010	mg/kg	0.38	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-20-S1	Soil	0.75-1.0	12/29/2010	mg/kg	0.36	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-23-S1	Soil	0.75-1.0	12/29/2010	mg/kg	0.35	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-27-S1	Soil	0.75-1.0	12/29/2010	mg/kg	0.37	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-29-S1	Soil	0.75-1.0	12/30/2010	mg/kg	0.37	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-34-S1	Soil	0.75-1.0	12/30/2010	mg/kg	0.37	1	*	*	ND	ND	ND	0.73
CFC Grinding Room	S-36-S1	Soil	0.75-1.0	12/30/2010	mg/kg	0.37	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-38-S1	Soil	0.75-1.0	12/30/2010	mg/kg	0.38	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	I-SOIL-2	Soil	1.5-1.75	5/25/2010	mg/kg	0.75	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-27-S2	Soil	1.5-1.75	12/29/2010	mg/kg	0.36	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-29-S2	Soil	1.5-1.75	12/30/2010	mg/kg	0.38	1	ND	ND	ND	ND	ND	ND

- 1. Samples were collected by GZA GeoEnvironmental, Inc. December 27 through December 30, 2010 (except for I-SOIL-2 sample collected 5-25-10)
- 2. Samples were analyzed by Phoenix Environmental Laboratory, Inc. in Manchester, CT.
- 3. Regulatory Criteria refers to TSCA threshold for bulk remediation waste.
- 4. Shaded and bold analysis exceed the TSCA limit for unrestricted use at a PCB release area.
- 5. ND = Not detected above the laboratory reporting limit for this compound.
- 6. "\*" indicates that individual Aroclors could not be determined.

### **TABLE 1C** PREVIOUS POST-REMEDIATION PCB SOIL SIDEWALL RESULTS 326 South Street, New Britain, CT

Room	Composite Sample ID	Individual Sample ID	Material	Depth Below Floor (feet)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	All other Aroclors	Total PCBs
		SW-1	Soil Sidewall								
Cutting & Grinding Room	SW-Comp-1	SW-2	Soil Sidewall	2	12/23/2011	mg/kg	0.0549	1	ND	ND	ND
		SW-3	Soil Sidewall								
		SW-4	Soil Sidewall								
Cutting & Grinding Room	SW-Comp-2	SW-5	Soil Sidewall	2	12/23/2011	mg/kg	0.0551	1	ND	ND	ND
		SW-6	Soil Sidewall								
		SW-7	Soil Sidewall								
Cutting & Grinding Room	SW-Comp-3	SW-8	Soil Sidewall	2	12/26/2011	mg/kg	0.057	1	ND	ND	ND
		SW-9	Soil Sidewall								
		SW-10	Soil Sidewall								
Cutting & Grinding Room	SW-Comp-4	SW-11	Soil Sidewall	2	12/26/2011	mg/kg	0.0561	1	ND	ND	ND
		SW-12	Soil Sidewall								
Cutting & Crinding Doom	SW-Comp-5	SW-13	Soil Sidewall	2	12/26/2011	ma/Ira	0.0574	1	0.896	ND	0.896^
Cutting & Grinding Room	Sw-Comp-3	SW-14	Soil Sidewall	2	12/20/2011	mg/kg	0.0374	1	0.890	ND	0.890^
Cutting & Grinding Room	Not Applicable	SW-13	Soil Sidewall	2	12/26/2011	mg/kg	0.0564	1	0.425	ND	0.425
Cutting & Grinding Room	Not Applicable	SW-14	Soil Sidewall	2	12/26/2011	mg/kg	0.0592	1	0.145	ND	0.145
Cutting & Grinding Room	Not Applicable	SW-15 (2.5')	Soil Sidewall	2.5	12/26/2011	mg/kg	0.0564	1	ND	ND	ND
Cutting & Grinding Room	Not Applicable	SW-15 (4')	Soil Sidewall	4	12/26/2011	mg/kg	606	1	8,630	ND	8,630
Cutting & Grinding Room	Not Applicable	NE-BP	Soil Sidewall	2	12/26/2011	mg/kg	0.0549	1	ND	ND	ND
Room	Composite Sample ID	Individual Sample ID	Material	Depth Below Floor (feet)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	All other Aroclors	Total PCBs
Cutting & Grinding Room	Not Applicable	Pipe-13-Soil	Sediment From Inside Pipe	1.7	12/23/2011	mg/kg	3210	NA	47,200	ND	47,200

- 1. Samples were collected by GZA GeoEnvironmental, Inc. December 23 through December 26, 2011.
- 2. Samples were analyzed by ESS Laboratory in Cranston, RI.
- 3. Regulatory Criteria refers to TSCA threshold for bulk remediation waste.
- 4. Shaded and bold analysis exceed the TSCA limit for unrestricted use at a PCB release area.
- 5. ND = Not detected above the laboratory reporting limit for this compound.
- 6. Laboratory reporting limits for aroclor 1248 may be higher than this table shows if the aroclor was detected. The recoding limits of aroclors not detected are shown in this table.

Pipe

7. "^" = When composite sample result exceeded threshold for composite sampling, the individual samples that made up the composite were laboratory analyzed.

# TABLE 1D PREVIOUS POST-REMEDIATION PCB SOIL BOTTOM RESULTS 326 South Street, New Britain, CT

Room	Composite Sample ID	Sample ID	Material	Depth Below Surface of Floor	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	All other Aroclors	Total PCBs
		Bot-1-10		4							
Grinding Room	Bot-Comp-1	Bot-1-11	Soil	2.5	12/23/2011	mg/kg	0.0628	1	0.0789	ND	0.0789
		Bot-1-12		2.5							
	_	Bot-2-10		4	1						
Grinding Room	Bot-Comp-2	Bot-2-11	Soil	2.5	12/23/2011	mg/kg	0.0646	1	ND	ND	ND
		Bot-2-12		2.5							
Crindina Doom	Pot Comp 2	Bot-3-10	Co:1	4	12/22/2011	ma/lra	0.0587	1	ND	ND	ND
Grinding Room	Bot-Comp-3	Bot-3-11 Bot-3-12	Soil	2.5	12/23/2011	mg/kg	0.0387	1	ND	ND	ND
		Bot-4-10		4							
Grinding Room	Bot-Comp-4*	Bot-4-11	Soil	2.5	12/23/2011	mg/kg	0.0571	1	0.44	ND	0.44^
Ormanig Room	Bot comp	Bot-4-12	Son	2.5	12/23/2011	mg/kg	0.0571	1	0.11	TVD	0.44
Grinding Room	Not Composite	Bot-4-10	Soil	4	12/23/2011	mg/kg	0.0629	1	9.02	ND	9.02
Grinding Room	Not Composite	Bot-4-11	Soil	2.5	12/23/2011	mg/kg	0.0614	1	0.1	ND	0.1
Grinding Room	Not Composite	Bot-4-12	Soil	2.5	12/23/2011	mg/kg	0.057	1	ND	ND	ND
C	Tyou composite	Bot-5-11	2011	2.5	12/20/2011	1118/118	0.007	-	1,2	1,2	1,2
Grinding Room	Bot-Comp-5	Bot-5-12	Soil	2.5	12/26/2011	mg/kg	0.0613	1	0.289	ND	0.289
-	-	Bot-5-13	1	2.5	1						
		Bot-6-11		2.5							
Grinding Room	Bot-Comp-6	Bot-6-12	Soil	2.5	12/26/2011	mg/kg	0.0548	1	0.162	ND	0.162
		Bot-6-13		2.5							
		Bot-7-11		2.5	1						
Grinding Room	Bot-Comp-7	Bot-7-12	Soil	2.5	12/26/2011	mg/kg	0.0589	1	0.116	ND	0.116
		Bot-7-13		2.5							
G : II P	D . G . 0	Bot-8-11	g ::	2.5	12/26/2011	//	0.0700		0.021	N.D.	0.004.4
Grinding Room	Bot-Comp-8	Bot-8-12	Soil	2.5	12/26/2011	mg/kg	0.0588	1	0.921	ND	0.921^
C : 1: D		Bot-8-13	~	2.5	10/01/01/1	_		_	0.5.1.5		0.547
Grinding Room	Not Composite	Bot-8-11	Soil	2.5	12/26/2011	mg/kg	0.0573	1	0.245	ND	0.245
Grinding Room	Not Composite	Bot-8-12	Soil	2.5	12/26/2011	mg/kg	0.0561	1	9.59	ND	9.59
Grinding Room	Not Composite	Bot-8-13	Soil	2.5	12/26/2011	mg/kg	0.057	1	ND	ND	ND
Grinding Room	Not Composite	Bot-5-10	Soil	4.75	12/26/2011	mg/kg	0.0602	1	1.55	ND	1.55
Grinding Room	Not Composite	Bot-6-10	Soil	4.75	12/26/2011	mg/kg	1.23	1	15	ND	15
Grinding Room	Not Composite	Bot-7-10	Soil	4.75	12/26/2011	mg/kg	0.0584	1	2.59	ND	2.59
Grinding Room	Not Composite	Bot-8-10	Soil	4.75	12/26/2011	mg/kg	0.0603	1	6.29	ND	6.29

- 1. Samples were collected by GZA GeoEnvironmental, Inc. December 27 and 29, 2011.
- 2. Samples were analyzed by ESS Laboratory in Cranston, RI.
- 3. Regulatory Criteria refers to TSCA threshold for bulk remediation waste.
- 4. Shaded and bold analysis exceed the TSCA limit for unrestricted use at a PCB release area.
- 5. ND = Not detected above the laboratory reporting limit for this compound.
- 6. "^" = When composite sample result exceded threshold for composite sampling, the individual samples that made up the composite were laboratory analyzed.

## TABLE 1E PREVIOUS POST-REMEDIATION PCB CONCRETE SIDEWALL RESULTS 326 South Street,

New Britain, CT

Room	Sample ID	Material	Height Below Floor (feet)	Sample Depth Below Surface (inches)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	All other Aroclors	Total PCBs
Grinding Room	C-1	Concrete Sidewall	2.5	0-0.5	12/23/2011	mg/kg	0.203	1	ND	ND	ND
Grinding Room	C-2	Concrete Sidewall	2.5	0-0.5	12/23/2011	mg/kg	0.22	1	ND	ND	ND
Grinding Room	C-3	Concrete Sidewall	2.5	0-0.5	12/23/2011	mg/kg	0.217	1	ND	ND	ND
Grinding Room	C-4	Concrete Sidewall	2.5	0-0.5	12/23/2011	mg/kg	0.209	1	0.299	ND	0.299
Grinding Room	C-5	Concrete Sidewall	2.5	0-0.5	12/23/2011	mg/kg	0.213	1	1.71	ND	1.71
Grinding Room	C-6	Concrete Sidewall	2.5	0-0.5	12/26/2011	mg/kg	0.2	1	1.72	ND	1.72
Grinding Room	C-7	Concrete Sidewall	2.5	0-0.5	12/26/2011	mg/kg	0.195	1	18.4	ND	18.4
Grinding Room	C-8	Concrete Sidewall	2.5	0-0.5	12/26/2011	mg/kg	0.197	1	5.49	ND	5.49
Grinding Room	C-9 <sup>+</sup>	Concrete Sidewall	2.5	0.5-1.0	12/28/2011	mg/kg	0.211	1	1.81	ND	1.81

- 1. Samples were collected by GZA GeoEnvironmental, Inc. December 23 through December 28, 2011.
- 2. Samples were analyzed by ESS Laboratory in Cranston, RI.
- 3. Regulatory Criteria refers to TSCA remediation criteria for unrestricted use.
- 4. Shaded and bold analysis exceed the regulatory criteria.
- 5. ND = Not detected above the laboratory reporting limit for this compound.
- 6. Samples were collected 0-0.5 inch deep into the wall.
- 7. "+" Sample was collected 0.5-1.0 inches deep into the foundation wall at same location as C-7 after scarification of wall (1/4-inch deep) was completed to remove black stained concrete.

### TABLE 1F ATLAS SOIL PCB RESULTS

326 South Street New Britain, Connecticut

Room	Sample ID	Material	Depth Below Surface of Floor (feet)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	Total PCBs
Atlas Main Room	A3-S-4	Soil	0.0-2.0	12/22/2012	mg/kg	0.36	1	ND	ND	ND	ND	ND	ND
Atlas Main Room	A3-S-4	Soil	2.0-4.0	12/22/2012	mg/kg	0.35	1	ND	ND	ND	ND	ND	ND
Atlas Main Room	A3-S-6	Soil	0.0-2.0	12/22/2012	mg/kg	0.35	1	ND	ND	ND	ND	ND	ND
Atlas Main Room	A3-S-6	Soil	2.0-4.0	12/22/2012	mg/kg	0.35	1	ND	ND	ND	ND	ND	ND
Atlas Compressor Room	A4-S-2	Soil	0.0-2.0	12/22/2012	mg/kg	0.36	1	ND	ND	ND	ND	ND	ND
Atlas Compressor Room	A4-S-5	Soil	0.0-2.0	12/22/2012	mg/kg	0.38	1	ND	ND	ND	ND	ND	ND
Atlas Compressor Room	A4-S-6	Soil	0.0-2.0	12/22/2012	mg/kg	0.36	1	ND	ND	ND	ND	ND	ND

- 1. Samples were collected by GZA GeoEnvironmental, Inc. December 22, 2012
- 2. Samples were analyzed by Phoenix Environmental Laboratory, Inc. in Manchester, CT.
- 3. Regulatory Criteria refers to TSCA threshold for bulk remediation waste.
- 4. Shaded and bold analysis exceed the TSCA limit for unrestricted use at a PCB release area.
- 5. ND = Not detected above the laboratory reporting limit for this compound.

# TABLE 2A INTERIOR CONCRETE FLOOR PCB RESULTS 326 South Street New Britain, CT

D	Camarla ID	Madanial	Depth Below Floor	Carrala Data	T1	Reporting	Regulatory	Aroclor	Aroclor	Aroclor	Aroclor	All other	T-4-LDCD-
Room	Sample ID	Material	(inches)	Sample Date	Units	Limit	Criteria	1248	1254	1260	1268	Aroclors	Total PCBs
Atlas Main Room	A3-F1	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	1.8
Atlas Main Room	A3-F2	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	ND	ND	ND	ND	0.66
Atlas Main Room	A3-F3	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	ND	ND	ND	ND	1.1
Atlas Main Room	A3-F4	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.32	1	*	ND	ND	ND	ND	2.8
Atlas Main Room	A3-F5	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	1.6	1	*	*	ND	ND	ND	6.9
Atlas Compressor Room	A4-F1	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.34	1	*	*	ND	ND	ND	3.9
Atlas Compressor Room	A4-F1 (dup)	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	4
Atlas Compressor Room	A4-F2	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	0.53
Atlas Compressor Room	A4-F3	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	0.68
Atlas Compressor Room	A4-F4	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
Atlas Compressor Room	A4-F5	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	0.53
Atlas Compressor Room	A4-F6	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.34	1	*	*	ND	ND	ND	3
Atlas Compressor Room	A4-F7	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	1.5
				·						•			
CFC Tumbling & Shaping	A5-F1	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	1.2
CFC Tumbling & Shaping	A5-F2	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	3.4
CFC Tumbling & Shaping	A5-F3	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.34	1	*	*	ND	ND	ND	2.7
CFC Tumbling & Shaping	A5-F4	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.34	1	*	ND	ND	ND	ND	1
CFC Tumbling & Shaping	A5-F5	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	3.3	1	*	ND	ND	ND	ND	9.6
CFC Tumbling & Shaping	A5-F5 (dup)	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	1.6	1	4.9	ND	ND	ND	ND	4.9
	110 10 (00 <b>F</b> )				8,8			1		1 - '-	1		
CFC Main Plant	A10-F1	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	1.7	1	*	ND	ND	ND	ND	7
CFC Main Plant	A10-F1	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.34	1	*	*	ND ND	ND	ND	0.62
CFC Main Plant	A10-F3	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	1
CFC Main Plant	A10-F4	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	0.5
CFC Main Plant	A10-F5	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-F6	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	1
CFC Main Plant	A10-F7	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.34	1	*	*	ND	ND	ND	2.5
CFC Main Plant	A10-F8	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	0.48
CFC Main Plant	A10-F9	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-F10	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.34	1	*	ND	ND	ND	ND	0.47
CFC Main Plant	A10-F11	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	ND	ND	ND	ND	1.2
CFC Main Plant	A10-F12	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	ND	ND	ND	ND	3.2
CFC Main Plant	A10-F13	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-F14	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-F15	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	4.4
CFC Main Plant	A10-F15 (dup)	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	1.6	1	4	ND	ND	ND	ND	4
CFC Main Plant	A10-F16	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.34	1	*	ND	ND	ND	ND	1.4
CFC Main Plant	A10-F17	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	1.9
CFC Main Plant	A10-F18	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	1.1
CFC Main Plant	A10-F19	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	ND	ND	ND	ND	1.3
CFC Main Plant	A10-F20	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.34	1	*	*	ND	ND	ND	1.3
CFC Main Plant	A10-F21	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	*	*	ND	ND	ND	0.75
CFC Main Plant	A10-F22	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-F23	Concrete Floor	0.0-0.5	12/27/2012	mg/kg	0.067	1	*	*	ND	ND	ND	0.3

# TABLE 2A INTERIOR CONCRETE FLOOR PCB RESULTS 326 South Street New Britain, CT

Room	Sample ID	Material	Depth Below Floor (inches)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	Total PCBs
CFC Bronzing Room	A14-F1	Concrete Floor	0.0-0.5	12/20/2012	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F2	Concrete Floor	0.0-0.5	12/20/2012	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F3	Concrete Floor	0.0-0.5	12/20/2012	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F4	Concrete Floor	0.0-0.5	12/20/2012	mg/kg	0.33	1	2.7	ND	ND	ND	ND	2.7
CFC Bronzing Room	A14-F5	Concrete Floor	0.0-0.5	12/28/2012	mg/kg	1.7	1	*	*	ND	ND	ND	20
CFC Bronzing Room	A14-F5 (dup)	Concrete Floor	0.0-0.5	12/28/2012	mg/kg	3.4	1	22	ND	ND	ND	ND	22
CFC Bronzing Room	A14-F6	Concrete Floor	0.0-0.5	12/28/2012	mg/kg	0.069	1	*	*	ND	ND	ND	0.26
CFC Bronzing Room	A14-F7	Concrete Floor	0.0-0.5	12/28/2012	mg/kg	0.071	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F8	Concrete Floor	0.0-0.5	12/28/2012	mg/kg	0.068	1	*	*	ND	ND	ND	0.28
CFC Bronzing Room	A14-F9	Concrete Floor	0.0-0.5	12/28/2012	mg/kg	0.066	1	*	ND	ND	ND	ND	0.15
CFC Bronzing Room	A14-F10	Concrete Floor	0.0-0.5	12/28/2012	mg/kg	0.068	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F11	Concrete Floor	0.0-0.5	12/28/2012	mg/kg	0.067	1	*	ND	ND	ND	ND	0.096
			•			•	•	•	•		•	•	
CFC Bronzing Room	A14-F-12	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	2.3	ND	ND	ND	ND	2.3
CFC Bronzing Room	A14-F-13	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F-14	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F-17	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	3.3	1	15	ND	ND	ND	ND	15
CFC Bronzing Room	A14-F-37 (dup)	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	1.7	1	5.2	ND	ND	ND	ND	5.2
CFC Bronzing Room	A14-F-18	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	17	1	110	ND	ND	ND	ND	110
CFC Bronzing Room	A14-F-19	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F-21	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.33	1	0.5	ND	ND	ND	ND	0.5
CFC Bronzing Room	A14-F-23	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F-26	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F-27	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	0.34	ND	ND	ND	ND	0.34
CFC Bronzing Room	A14-F-28	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	0.57	ND	ND	ND	ND	0.57
CFC Bronzing Room	A14-F-29	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.33	1	0.89	ND	ND	ND	ND	0.89
CFC Bronzing Room	A14-F-30	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F-31	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	0.44	ND	ND	ND	ND	0.44
CFC Bronzing Room	A14-F-32	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	1.4	ND	ND	ND	ND	1.4
CFC Bronzing Room	A14-F-33	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F-34	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	1.9	ND	ND	ND	ND	1.9
CFC Bronzing Room	A14-F-35	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	1.7	ND	ND	ND	ND	1.7
CFC Bronzing Room	A14-F-36	Concrete Floor	0.0-0.5	6/30/2013	mg/kg	0.34	1	1.3	ND	ND	ND	ND	1.3
Atlas Main Room	A3-F1	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
Atlas Main Room	A3-F3	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
Atlas Main Room	A3-F4	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.41	1	0.86	ND	ND	ND	ND	0.86
Atlas Main Room	A3-F5	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.33	1	0.61	ND	ND	ND	ND	0.61
Atlas Compressor Room	A4-F1	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
Atlas Compressor Room	A4-F6	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.33	1	0.51	ND	ND	ND	ND	0.51
Atlas Compressor Room	A4-F7	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND

# TABLE 2A INTERIOR CONCRETE FLOOR PCB RESULTS 326 South Street New Britain, CT

Room	Sample ID	Material	Depth Below Floor (inches)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	Total PCBs
CFC Tumbling & Shaping	A5-F1	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Tumbling & Shaping	A5-F2	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Tumbling & Shaping	A5-F3	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Tumbling & Shaping	A5-F4	Concrete Floor	0.5-1.0	12/28/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Tumbling & Shaping	A5-F5	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
		•											
CFC Main Plant	A10-F1	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.33	1	0.33	ND	ND	ND	ND	0.33
CFC Main Plant	A10-F3	Concrete Floor	0.5-1.0	12/28/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-F6	Concrete Floor	0.5-1.0	12/29/2012	mg/kg	0.34	1	0.43	ND	ND	ND	ND	0.43
CFC Main Plant	A10-F7	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.35	1	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-F11	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-F12	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-F15	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.34	1	0.68	ND	ND	ND	ND	0.68
CFC Main Plant	A10-F16	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-F17	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-F18	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-F19	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.36	1	0.43	ND	ND	ND	ND	0.43
CFC Main Plant	A10-F20	Concrete Floor	0.5-1.0	12/27/2012	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
		•											
CFC Bronzing Room	A14-F-5	Concrete Floor	0.5-1.0	12/28/2012	mg/kg	0.35	1	1.4	ND	ND	ND	ND	1.4
CFC Bronzing Room	A14-F-12	Concrete Floor	0.5-1.0	6/30/2013	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F-17	Concrete Floor	0.5-1.0	6/30/2013	mg/kg	0.35	1	0.63	ND	ND	ND	ND	0.63
CFC Bronzing Room	A14-F-18	Concrete Floor	0.5-1.0	6/30/2013	mg/kg	17	1	83	ND	ND	ND	ND	83
CFC Bronzing Room	A14-F-32	Concrete Floor	0.5-1.0	6/30/2013	mg/kg	0.35	1	0.43	ND	ND	ND	ND	0.43
CFC Bronzing Room	A14-F-34	Concrete Floor	0.5-1.0	6/30/2013	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F-35	Concrete Floor	0.5-1.0	6/30/2013	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	A14-F-36	Concrete Floor	0.5-1.0	6/30/2013	mg/kg	0.34	1	ND	ND	ND	ND	ND	ND

- 1. Samples were collected by GZA GeoEnvironmental, Inc.
- 2. Samples were analyzed by Phoenix Environmental Laboratory, Inc. in Manchester, CT.
- 3. Regulatory Criteria refers to TSCA threshold for unrestricted use of porous surfaces (concrete).
- 4. Shaded and bold analysis exceed the TSCA limit for unrestricted use at a PCB release area.
- 5. ND = Not detected above the laboratory reporting limit for this compound.
- 6. "\*" indicates individual Aroclors could not be determined
- 6. A14-F-37 is a blind duplicate of A14-F-17.

### TABLE 2B PREVIOUS INTERIOR CONCRETE FLOOR PCB RESULTS 326 South Street

326 South Street New Britain, CT

					Britain, CI								
Room	Sample ID	Material	Depth Below Floor (inches)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	Total PCBs
CFC Oil Storage Room	S-1-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	*	ND	ND	ND	ND	1.4
CFC Oil Storage Room	S-2-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	*	ND	ND	ND	ND	1
CFC Oil Storage Room	S-3-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	*	ND	ND	ND	ND	1.1
CFC Oil Storage Room	S-4-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	*	ND	ND	ND	ND	0.71
CFC Oil Storage Room	S-5-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Oil Storage Room	S-6-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	*	ND	ND	ND	ND	1.3
CFC Oil Storage Room	S-7-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	*	ND	ND	ND	ND	0.54
CFC Oil Storage Room	S-7-C1 DUP	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	*	ND	ND	ND	ND	0.38
CFC Oil Storage Room	S-8-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	*	ND	ND	ND	ND	0.44
CFC Grinding Room	S-9-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	*	*	ND	*	ND	3.9
CFC Grinding Room	S-10-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	*	*	ND	*	ND	2.63
CFC Grinding Room	S-10-C1 DUP	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	*	*	ND	*	ND	4.3
CFC Grinding Room	S-11-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	3.3	1	*	*	ND	*	ND	40.8
CFC Grinding Room	S-12-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	1.6	1	*	*	ND	*	ND	22.3
CFC Grinding Room	S-15-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-16-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	3.3	1	ND	ND	ND	*	*	29
CFC Grinding Room	I-CONC-1	Concrete Floor	0.0-0.5	5/25/2010	mg/kg	33	1	*	*	ND	ND	ND	220
CFC Grinding Room	S-19-C1	Concrete Floor	0.0-0.5	12/29/2010	mg/kg	16	1	*	*	ND	ND	ND	120
CFC Grinding Room	S-20-C1	Concrete Floor	0.0-0.5	12/29/2010	mg/kg	1.7	1	*	*	ND	ND	ND	14
CFC Grinding Room	S-23-C1	Concrete Floor	0.0-0.5	12/29/2010	mg/kg	1.7	1	*	*	ND	ND	ND	4.3
CFC Grinding Room	S-24-C1	Concrete Floor	0.0-0.5	12/29/2010	mg/kg	3.2	1	*	*	ND	*	ND	73
CFC Grinding Room	S-27-C1	Concrete Floor	0.0-0.5	12/29/2010	mg/kg	1.6	1	*	*	ND	ND	ND	14
CFC Grinding Room	S-28-C1	Concrete Floor	0.0-0.5	12/29/2010	mg/kg	1.6	1	*	*	ND	*	ND	15.2
CFC Grinding Room	S-29-C1	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	81	1	*	*	ND	ND	ND	720
CFC Grinding Room	S-31-C1	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	3.2	1	*	*	ND	ND	ND	26
CFC Grinding Room	S-32-C1	Concrete Floor	0.0-0.5	12/29/2010	mg/kg	0.33	1	*	*	ND	*	ND	5.47
CFC Grinding Room	S-33-C1	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	0.33	1	*	*	ND	*	ND	2.9
CFC Grinding Room	S-33-C1 DUP	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	0.33	1	*	*	ND	*	ND	2.4
CFC Grinding Room	S-34-C1	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	0.33	1	*	*	ND	*	ND	15.8
CFC Grinding Room	S-35-C1	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	3.3	1	*	*	ND	*	ND	46
CFC Grinding Room	S-36-C1	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	16	1	*	*	ND	*	ND	247
CFC Grinding Room	S-37-C1	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	0.32	1	*	*	ND	*	ND	20.9
CFC Grinding Room	S-38-C1	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	3.3	1	*	*	ND	ND	ND	12
CFC Grinding Room	S-39-C1	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	3.3	1	*	*	ND	*	ND	54
CFC Grinding Room	S-40-C1	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	16	1	ND	ND	ND	58	ND	58
CFC Grinding Room	S-40-C1 DUP	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	16	1	ND	ND	ND	52	ND	52
CFC Compressor Room	S-51-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.32	1	*	ND	ND	ND	ND	0.53
CFC Compressor Room	S-52-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.32	1	*	ND	ND	ND	ND	0.36
CFC Compressor Room	S-53-C1	Concrete Floor	0.0-0.5	12/28/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Bronzing Room	S-47-C1	Concrete Floor	0.0-0.5	12/29/2010	mg/kg	0.33	1	*	*	ND	ND	ND	0.57
CFC Main Plant	S-42-C1	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	3.3	1	*	*	ND	ND	ND	21
CFC Main Plant	S-55-C1	Concrete Floor	0.0-0.5	12/30/2010	mg/kg	0.33	1	*	*	ND	ND	ND	4

### TABLE 2B PREVIOUS INTERIOR CONCRETE FLOOR PCB RESULTS

### 326 South Street New Britain, CT

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Room	Sample ID	Material	Depth Below Floor (inches)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	<b>Total PCBs</b>
CFC Oil Storage Room	S-1-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Oil Storage Room	S-2-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Oil Storage Room	S-3-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	0.32	1	ND	ND	ND	ND	ND	ND
CFC Oil Storage Room	S-4-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	NA	1	NA	NA	NA	NA	NA	NA
CFC Oil Storage Room	S-5-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	NA	1	NA	NA	NA	NA	NA	NA
CFC Oil Storage Room	S-6-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Oil Storage Room	S-7-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	NA	1	NA	NA	NA	NA	NA	NA
CFC Oil Storage Room	S-8-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	NA	1	NA	NA	NA	NA	NA	NA
			•	•		•	•	•	•	•	•	•	
CFC Grinding Room	S-9-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-10-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-11-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	0.33	1	*	*	ND	ND	ND	2.7
CFC Grinding Room	S-12-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-15-C2	Concrete Floor	0.5-1.0	12/29/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-16-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	0.32	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-19-C2	Concrete Floor	0.5-1.0	12/29/2010	mg/kg	3.3	1	*	*	ND	ND	ND	36
CFC Grinding Room	S-20-C2	Concrete Floor	0.5-1.0	12/29/2010	mg/kg	0.32	1	*	*	ND	ND	ND	1
CFC Grinding Room	S-23-C2	Concrete Floor	0.5-1.0	12/29/2010	mg/kg	0.33	1	*	*	ND	ND	ND	2.1
CFC Grinding Room	S-24-C2	Concrete Floor	0.5-1.0	12/29/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-27-C2	Concrete Floor	0.5-1.0	12/29/2010	mg/kg	1.7	1	*	*	ND	ND	ND	4.8
CFC Grinding Room	S-28-C2	Concrete Floor	0.5-1.0	12/29/2010	mg/kg	0.32	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-29-C2	Concrete Floor	0.5-1.0	12/30/2010	mg/kg	16	1	*	*	ND	ND	ND	130
CFC Grinding Room	S-31-C2	Concrete Floor	0.5-1.0	12/30/2010	mg/kg	0.32	1	*	*	ND	ND	ND	0.75
CFC Grinding Room	S-32-C2	Concrete Floor	0.5-1.0	12/29/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-33-C2	Concrete Floor	0.5-1.0	12/30/2010	mg/kg	0.32	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-34-C2	Concrete Floor	0.5-1.0	12/30/2010	mg/kg	0.33	1	*	*	ND	ND	ND	1.1
CFC Grinding Room	S-35-C2	Concrete Floor	0.5-1.0	12/30/2010	mg/kg	0.32	1	*	*	ND	ND	ND	0.47
CFC Grinding Room	S-36-C2	Concrete Floor	0.5-1.0	12/30/2010	mg/kg	3.3	1	*	*	ND	ND	ND	15
CFC Grinding Room	S-37-C2	Concrete Floor	0.5-1.0	12/30/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-38-C2	Concrete Floor	0.5-1.0	12/30/2010	mg/kg	0.32	1	*	*	ND	ND	ND	2.9
CFC Grinding Room	S-39-C2	Concrete Floor	0.5-1.0	12/30/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Grinding Room	S-40-C2	Concrete Floor	0.5-1.0	12/30/2010	mg/kg	0.33	1	ND	ND	0.51	ND	ND	0.51
CFC Compressor Room	S-51-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	NA	1	NA	NA	NA	NA	NA	NA
CFC Compressor Room	S-52-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	NA	1	NA	NA	NA	NA	NA	NA
CFC Compressor Room	S-53-C2	Concrete Floor	0.5-1.0	12/28/2010	mg/kg	NA	1	NA	NA	NA	NA	NA	NA
CFC Bronzing Room	S-47-C2	Concrete Floor	0.5-1.0	12/30/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Main Plant	S-42-C2	Concrete Floor	0.5-1.0	12/30/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
	S-55-C2	Concrete Floor  Concrete Floor	0.5-1.0	12/30/2010	mg/kg	0.33	1	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
CFC Main Plant	<b>3-33-</b> C2	Concrete Floor	0.5-1.0	12/30/2010	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND

### TABLE 2B PREVIOUS INTERIOR CONCRETE FLOOR PCB RESULTS

### 326 South Street New Britain, CT

				11011	Britain, C1								
Room	Sample ID	Material	Depth Below Floor (inches)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	Total PCBs
CFC Aluminum Foundry	S-41-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	1.6	1	*	*	ND	ND	ND	0.58
CFC Aluminum Foundry	S-43-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.16	1	*	*	ND	ND	ND	0.64
CFC Aluminum Foundry	S-44-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.82	1	*	*	ND	ND	ND	9.3
CFC Aluminum Foundry	S-45-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	1.6	1	*	*	ND	ND	ND	2
CFC Aluminum Foundry	S-45-C1 DUP	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.83	1	*	*	ND	ND	ND	6
CFC Aluminum Foundry	S-46-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	1.6	1	*	*	ND	ND	ND	9.3
CFC Aluminum Foundry	S-47-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	1.6	1	*	*	ND	ND	ND	5.7
CFC Aluminum Foundry	S-48-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.83	1	*	*	ND	ND	ND	10
CFC Aluminum Foundry	S-49-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.16	1	*	*	ND	ND	ND	1.9
CFC Aluminum Foundry	S-50-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	1.6	1	*	*	ND	ND	ND	5.3
CFC Aluminum Foundry	S-51-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	1.7	1	*	*	ND	ND	ND	17
CFC Aluminum Foundry	S-52-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.16	1	ND	0.7	ND	ND	ND	0.7
CFC Aluminum Foundry	S-53-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.16	1	*	*	ND	ND	ND	0.85
CFC Aluminum Foundry	S-54-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.83	1	*	*	ND	ND	ND	9.6
CFC Aluminum Foundry	S-56-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.16	1	*	*	ND	ND	ND	0.68
CFC Aluminum Foundry	S-57-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.16	1	*	*	ND	ND	ND	1.2
CFC Aluminum Foundry	S-58-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.16	1	*	*	ND	ND	ND	1.06
CFC Aluminum Foundry	S-59-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.82	1	*	*	ND	ND	ND	3.7
CFC Aluminum Foundry	S-60-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.82	1	*	*	ND	ND	ND	3.7
CFC Aluminum Foundry	S-61-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	0.78	1	*	*	ND	ND	ND	3.5
CFC Aluminum Foundry	S-62-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	1.6	1	*	*	ND	ND	ND	4.9
CFC Aluminum Foundry	S-63-C1	Concrete Floor	0.0-0.5	5/11/2011	mg/kg	1.6	1	*	*	ND	ND	ND	5.2
CFC Aluminum Foundry	S-41-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.32	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-43-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-43-C2 DUP	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.32	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-44-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.32	1	*	ND	ND	ND	ND	0.46
CFC Aluminum Foundry	S-45-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.32	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-46-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	*	ND	ND	ND	ND	0.76
CFC Aluminum Foundry	S-47-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.32	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-48-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	*	ND	ND	ND	ND	0.78
CFC Aluminum Foundry	S-49-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-50-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-51-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.32	1	*	ND	ND	ND	ND	0.32
CFC Aluminum Foundry	S-52-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-53-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-54-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-56-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-57-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-58-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-59-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-60-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-61-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-62-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.32	1	ND	ND	ND	ND	ND	ND
CFC Aluminum Foundry	S-63-C2	Concrete Floor	0.5-1.0	5/11/2011	mg/kg	0.33	1	ND	ND	ND	ND	ND	ND

- 1. Samples were collected by GZA GeoEnvironmental, Inc. May 25, 2010, December 28-30, 2012, and May 11, 2011.
- 2. Samples were analyzed by Phoenix Environmental Laboratory, Inc. in Manchester, CT.
- 3. Regulatory Criteria refers to TSCA threshold for unrestricted use of porous surfaces (concrete).
- $4. \ Shaded \ and \ bold \ analysis \ exceed \ the \ TSCA \ limit \ for \ unrestricted \ use \ at \ a \ PCB \ release \ area.$
- 5. ND = Not detected above the laboratory reporting limit for this compound.
- 6. "\*" indicates individual Aroclors could not be determined

# TABLE 3A INTERIOR WALL/PAINT PCB RESULTS 326 South Street New Britain, CT

Room	Sample ID	Material	Height Above Floor (feet)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	Total PCBs
Atlas Compressor Room	A4-PW-1	Concrete Wall	4	12/28/2012	mg/kg	1.6	۸	*	*	ND	ND	ND	9.3
Atlas Compressor Room	A4-PW-2	Concrete Wall	4	12/28/2012	mg/kg	14	۸	*	*	ND	ND	ND	58
Atlas Compressor Room	A4-PW-3	Concrete Wall	4	12/28/2012	mg/kg	3.1	۸	*	*	ND	ND	ND	29
CFC Tumbling & Shaping	A5-PW-1	Sheetrock Wall	4	12/28/2012	mg/kg	3	۸	*	*	ND	ND	ND	9.6
CFC Tumbling & Shaping	A5-PW-2	Sheetrock Wall	4	12/28/2012	mg/kg	0.82	۸	*	ND	ND	ND	ND	9.1
CFC Tumbling & Shaping	A5-PW-3	Sheetrock Wall	4	12/28/2012	mg/kg	0.59	۸	*	ND	ND	ND	ND	6.4
CFC Main Plant	A10-PW-1	Concrete Wall	4	12/27/2012	mg/kg	2	٨	*	*	ND	ND	ND	16
CFC Main Plant	A10-PW-2	Concrete Wall	4	12/27/2012	mg/kg	3	٨	*	*	ND	ND	ND	37
CFC Main Plant	A10-PW-3	Concrete Wall	4	12/27/2012	mg/kg	8	٨	*	ND	ND	ND	ND	36
CFC Main Plant	A10-PW-4	Concrete Wall	4	12/27/2012	mg/kg	14	۸	*	ND	ND	ND ND	ND	52
CFC Main Plant	A10-PW-4 (dup)	Concrete Wall	4	12/27/2012	mg/kg	8	٨	*	*	ND	ND	ND	53
CFC Main Plant	A10-PW-5	Concrete Wall	4	12/27/2012	mg/kg	3.2	٨	*	*	ND	ND	ND	32
CFC Main Plant	A10-PW-6	Concrete Wall	4	12/27/2012	mg/kg	9.2	٨	38	ND	ND	ND ND	ND	38
CFC Main Plant	A10-PW-7	Sheetrock Wall	4	12/27/2012	mg/kg	0.72	٨	*	*	ND	ND ND	ND	1.2
CFC Main Plant	A10-PW-7 (dup)	Sheetrock Wall	4	12/27/2012	mg/kg	0.82	^	1.3	ND	ND	ND	ND	1.3
CFC Main Plant	A10-PW-8	Concrete Wall	4	12/27/2012	mg/kg	3.4	٨	*	*	ND	ND	ND	24
CFC Main Plant	A10-PW-9	Concrete Wall	4	12/27/2012	mg/kg	1.9	٨	*	*	ND	ND	ND	26
CFC Main Plant	A10-PW-10	Concrete Wall	4	12/27/2012	mg/kg	8	٨	*	ND	ND	ND	ND	45
CFC Main Plant	A10-PW-11	Concrete Wall	4	12/28/2012	mg/kg	29	٨	*	*	ND	ND	ND	72
CFC Main Plant	A10-PW-12	Sheetrock Wall	4	12/28/2012	mg/kg	2.5	٨	23	ND	ND	ND	ND	23
CFC Main Plant	A10-PW-13	Concrete Wall	10	7/3/2013	mg/kg	2.4	٨	*	*	ND	ND	ND	12
CFC Main Plant	A10-PW-13	Concrete Wall	15	7/3/2013	mg/kg	0.33	٨	*	*	*	ND	ND	4.8
CFC Main Plant	A10-PW-14	Concrete Wall	10	7/3/2013	mg/kg	2.5	٨	22	ND	ND	ND	ND	22
CFC Main Plant	A10-PW-14	Concrete Wall	15	7/3/2013	mg/kg	1.6	٨	7.7	ND	ND	ND	ND	7.7
CFC Main Plant	A10-PW-15	Sheetrock Wall	10	7/3/2013	mg/kg	0.5	٨	2.9	ND	ND	ND	ND	2.9
CFC Main Plant	A10-PW-15	Sheetrock Wall	15	7/3/2013	mg/kg	0.37	٨	1.7	ND	ND	ND	ND	1.7
CFC Main Plant	A10-PW-16	Sheetrock Wall	10	7/3/2013	mg/kg	0.35	٨	1.8	ND	ND	ND	ND	1.8
CFC Main Plant	A10-PW-16	Sheetrock Wall	15	7/3/2013	mg/kg	0.33	۸	1.5	ND	ND	ND	ND	1.5
										<u> </u>			
CFC Grinding Room	A12-PW-1	Sheetrock Wall	10	7/3/2013	mg/kg	0.65	^	*	*	*	ND	ND	5.2
CFC Grinding Room	A12-PW-1 (dup)	Sheetrock Wall	10	7/3/2013	mg/kg	0.65	۸	*	*	*	ND	ND	5.4
CFC Grinding Room	A12-PW-1	Sheetrock Wall	15	7/3/2013	mg/kg	3.4	^	*	*	ND	ND	ND	12
CFC Grinding Room	A12-PW-2	Concrete Wall	10	7/3/2013	mg/kg	5.4	^	*	*	*	ND	ND	59
CFC Grinding Room	A12-PW-2	Concrete Wall	15	7/3/2013	mg/kg	3.9	^	*	*	ND	ND	ND	30
CFC Grinding Room	A12-PW-3	Concrete Wall	10	7/3/2013	mg/kg	4.9	^	*	*	ND	ND	ND	40
CFC Grinding Room	A12-PW-3	Concrete Wall	15	7/3/2013	mg/kg	3.2	^	*	*	*	ND	ND	26
CFC Bronzing Room	A14-PW-1	Concrete Wall	4	12/28/2012	mg/kg	0.81	٨	*	*	ND	ND	ND	2.8
CFC Bronzing Room	A14-PW-2	Concrete Wall	4	12/28/2012	mg/kg	0.51	٨	*	ND	ND	ND	ND	4.1
CFC Bronzing Room	A14-PW-3	Concrete Wall	4	12/28/2012	mg/kg	0.76	^	*	ND	ND	ND	ND	6.7
CFC Bronzing Room	A14-PW-4	Concrete Wall	4	12/28/2012	mg/kg	1.8	۸	*	*	ND	ND	ND	18
CFC Bronzing Room	A14-PW-5	Concrete Wall	4	12/28/2012	mg/kg	0.58	۸	*	ND	ND	ND	ND	0.85
CFC Bronzing Room	A14-PW-6	Concrete Wall	4	12/28/2012	mg/kg	2.8	۸	*	*	ND	ND	ND	14
CFC Bronzing Room	A14-PW-7	Concrete Wall	4	7/3/2013	mg/kg	0.31	٨	*	*	*	ND	ND	2
CFC Bronzing Room	A14-PW-7	Concrete Wall	10	7/3/2013	mg/kg	2.4	۸	*	*	ND	ND	ND	12
CFC Bronzing Room	A14-PW-7	Concrete Wall	15	7/3/2013	mg/kg	0.57	۸	*	*	*	ND	ND	5.2
CFC Bronzing Room	A14-PW-8	Concrete Wall	4	7/3/2013	mg/kg	2.5	۸	*	*	ND	ND	ND	15
CFC Bronzing Room	A14-PW-8	Concrete Wall	10	7/3/2013	mg/kg	2.5	۸	*	*	ND	ND	ND	8.7
CFC Bronzing Room	A14-PW-8	Concrete Wall	15	7/3/2013	mg/kg	2.6	۸	*	*	ND	ND	ND	7.3
CFC Bronzing Room	A14-PW-9	Concrete Wall	4	7/3/2013	mg/kg	2.7	۸	*	*	ND	ND	ND	17
CFC Bronzing Room	A14-PW-9	Concrete Wall	10	7/3/2013	mg/kg	0.57	٨	*	*	*	ND	ND	3.4
CFC Bronzing Room	A14-PW-9	Concrete Wall	15	7/3/2013	mg/kg	0.36	۸	*	*	*	ND	ND	3

<sup>1.</sup> Samples were collected by GZA GeoEnvironmental, Inc.

<sup>2.</sup> Samples were analyzed by Phoenix Environmental Laboratory, Inc. in Manchester, CT.

<sup>3.</sup> Regulatory Criteria refers to TSCA threshold for unrestricted use of porous surfaces (concrete).

<sup>4.</sup> Shaded and bold analysis exceed the TSCA limit for unrestricted use at a PCB release area.

<sup>5.</sup> ND = Not detected above the laboratory reporting limit for this compound.

<sup>6. &</sup>quot;\*" indicates individual Aroclors could not be determined.

<sup>7. &</sup>quot;^" Regulatory criteria will be determined in a remedial action plan which accounts for end goal of Site.

## TABLE 3B PREVIOUS INTERIOR WALL/PAINT PCB RESULTS 326 South Street

New Britain, CT

Room	Sample ID	Material	Height Above Floor (feet)	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	Total PCBs
CFC Oil Storage Room	W-1 (1)	Concrete Wall	1	12/27/2010	mg/kg	1.6	1	*	*	ND	ND	ND	13
CFC Oil Storage Room	W-2 (1)	Concrete Wall	1	12/27/2010	mg/kg	2.7	1	*	*	ND	ND	ND	16
CFC Oil Storage Room	W-3 (1)	Concrete Wall	1	12/27/2010	mg/kg	3.3	1	*	*	ND	ND	ND	14
CFC Oil Storage Room	W-4 (1)	Concrete Wall	1	12/27/2010	mg/kg	1.7	1	*	*	ND	ND	ND	14
CFC Oil Storage Room	W-5 (1)	Concrete Wall	1	12/27/2010	mg/kg	3.4	1	*	*	ND	ND	ND	42
CFC Oil Storage Room	W-6 (1)	Concrete Wall	1	12/27/2010	mg/kg	4	1	*	*	ND	ND	ND	19
CFC Oil Storage Room	W-7 (1)	Concrete Wall	1	12/27/2010	mg/kg	4.4	1	*	ND	ND	ND	ND	30
CFC Oil Storage Room	W-8 (1)	Concrete Wall	1	12/27/2010	mg/kg	1.8	1	*	*	ND	ND	ND	14
er e on storage Room	. ,		<u> </u>		<u> </u>						ı		
CFC Oil Storage Room	W-1 (4)	Concrete Wall	4	12/27/2010	mg/kg	3.3	1	*	*	ND	ND	ND	13
CFC Oil Storage Room	W-2 (4)	Concrete Wall	4	12/27/2010	mg/kg	3.3	1	*	*	ND	ND	ND	10
CFC Oil Storage Room	W-3 (4)	Concrete Wall	4	12/27/2010	mg/kg	4.2	1	*	*	ND	ND	ND	12
CFC Oil Storage Room	W-4 (4)	Concrete Wall	4	12/27/2010	mg/kg	3.2	1	*	*	ND	ND	ND	12
	W-5 (4)	Concrete Wall	4	12/27/2010	mg/kg	2.2	1	*	*	ND	ND	ND ND	22
CFC Oil Storage Room CFC Oil Storage Room	W-5 (4) W-6 (4)	Concrete Wall	4	12/27/2010	mg/kg	6.2	1	*	*	ND	ND	ND ND	17
ĕ	W-0 (4) W-7 (4)	Concrete Wall	4	12/27/2010		2.2	1	*	*	ND	ND	ND ND	18
CFC Oil Storage Room	W-7 (4) W-8 (4)	Concrete Wall	4	12/27/2010	mg/kg mg/kg	1.6	1	*	*	ND ND	ND ND	ND ND	7.8
CFC Oil Storage Room	W-0 ( <del>4</del> )	Colletete wall	4	12/27/2010	Ilig/kg	1.0	1			ND	ND	ND	7.0
CEC C : 1' P	W-9 (1)	Concrete Wall	1 1	12/27/2010	ma/lra	16	1	*	*	ND	ND	ND	56
CFC Grinding Room	W-9 (1) W-12 (1)	Concrete Wall	1	12/27/2010	mg/kg	16 1.6	1	*	*	ND ND	ND ND	ND ND	20
CFC Grinding Room			1		mg/kg		1	*	*				
CFC Grinding Room	W-13 (1)	Concrete Wall	1	12/27/2010	mg/kg	3.2	1	*	* *	ND	ND	ND	31
CFC Grinding Room	W-16 (1)	Concrete Wall	1	12/27/2010	mg/kg	3.3	1	T-	*	ND	ND	ND	24
CFC Grinding Room	W-17 (1)	Concrete Wall	1	12/27/2010	mg/kg	3.3	1	*	*	ND	ND	ND	40
CFC Grinding Room	W-20 (1)	Concrete Wall	1	12/27/2010	mg/kg	1.6	1	,	,	ND	ND	ND	17
CFC Grinding Room	W-21 (1)	Concrete Wall	1	12/27/2010	mg/kg	16	1	*	*	ND	ND	ND	91
CFC Grinding Room	W-24 (1)	Concrete Wall	1	12/27/2010	mg/kg	3.3	1	*	*	ND	ND	ND	23
CFC Grinding Room	W-24 (1) DUP	Concrete Wall	1	12/27/2010	mg/kg	3.3	1	*	*	ND	ND	ND	29
CFC Grinding Room	W-25 (1)	Concrete Wall	1	12/27/2010	mg/kg	160	1	*	*	ND	ND	ND	760
CFC Grinding Room	W-28 (1)	Concrete Wall	1	12/27/2010	mg/kg	1.6	1	*	*	ND	ND	ND	19
CFC Grinding Room	W-29 (1)	Concrete Wall	1	12/27/2010	mg/kg	16	1	*	*	ND	ND	ND	58
CFC Grinding Room	W-29 (1) DUP	Concrete Wall	1	12/27/2010	mg/kg	16	1	*	*	ND	ND	ND	61
CFC Grinding Room	W-33 (1)	Concrete Wall	1	12/27/2010	mg/kg	1.6	1	*	*	ND	ND	ND	18
CFC Grinding Room	W-36 (1)	Concrete Wall	1	12/27/2010	mg/kg	1.8	1	*	*	ND	ND	ND	20
CFC Grinding Room	W-40 (1)	Concrete Wall	1	12/27/2010	mg/kg	16	1	*	*	ND	ND	ND	16
CFC Grinding Room	W-9 (4)	Concrete Wall	4	12/27/2010	mg/kg	17	1	*	*	ND	ND	ND	83
CFC Grinding Room	W-12 (4)	Concrete Wall	4	12/27/2010	mg/kg	1.6	1	*	*	ND	ND	ND	22
CFC Grinding Room	W-13 (4)	Concrete Wall	4	12/27/2010	mg/kg	3.2	1	*	*	ND	ND	ND	10
CFC Grinding Room	W-16 (4)	Concrete Wall	4	12/27/2010	mg/kg	3.3	1	*	*	ND	ND	ND	29
CFC Grinding Room	W-17 (4)	Concrete Wall	4	12/27/2010	mg/kg	8.2	1	*	*	ND	ND	ND	40
CFC Grinding Room	W-20 (4)	Concrete Wall	4	12/27/2010	mg/kg	1.6	1	*	*	ND	ND	ND	5.4
CFC Grinding Room	W-21 (4)	Concrete Wall	4	12/27/2010	mg/kg	17	1	*	*	ND	ND	ND	50
CFC Grinding Room	W-24 (4)	Concrete Wall	4	12/27/2010	mg/kg	1.6	1	*	*	ND	ND	ND	21
CFC Grinding Room	W-25 (4)	Concrete Wall	4	12/27/2010	mg/kg	33	1	*	*	ND	ND	ND	360
CFC Grinding Room	W-28 (4)	Concrete Wall	4	12/27/2010	mg/kg	4.3	1	*	*	ND	ND	ND	29
CFC Grinding Room	W-29 (4)	Concrete Wall	4	12/27/2010	mg/kg	8.3	1	*	*	ND	ND	ND	36
CFC Grinding Room	W-33 (4)	Concrete Wall	4	12/27/2010	mg/kg	8.3	1	*	*	ND	ND	ND	26
CFC Grinding Room	W-36 (4)	Concrete Wall	4	12/27/2010	mg/kg	1.6	1	*	*	ND	ND	ND	23
	20(1)			12,2,,2010	····-Ø' ••• •	2.0	-		1				

### TABLE 3B PREVIOUS INTERIOR WALL/PAINT PCB RESULTS 326 South Street

### New Britain, CT

Room	Sample ID	Material	Height Above Floor	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	Total PCBs
Atlas Storage Area	Paint 1	Concrete Block	4	5/9/2011	mg/kg	0.86	50	*	*	ND	ND	ND	12
Atlas Storage Area	Paint 2	Concrete Block	4	5/9/2011	mg/kg	1.6	50	*	*	ND	ND	ND	10
Atlas Storage Area	Paint 3	Concrete Block	4	5/9/2011	mg/kg	0.85	50	*	*	ND	ND	ND	6.5
Atlas Storage Area	Paint 4	Brick	2	5/9/2011	mg/kg	0.29	50	*	*	ND	ND	ND	4.4
Atlas Main Room	Paint 5	Concrete	4	5/9/2011	mg/kg	1.5	50	*	*	ND	ND	ND	5.6
Atlas Main Room	Paint 6	Dry Wall	4	5/9/2011	mg/kg	0.58	50	*	*	ND	ND	ND	6.5
Atlas Main Room	Paint 7	Concrete	4	5/9/2011	mg/kg	0.98	50	*	*	ND	ND	ND	8.1
Atlas Main Room	Paint 8	Concrete Block	4	5/9/2011	mg/kg	0.76	50	*	*	ND	ND	ND	5.9
Atlas Main Room	Paint 9	Concrete	4	5/9/2011	mg/kg	1.6	50	*	*	ND	ND	ND	6.4
Atlas Compressor Room	Paint 10	Concrete	4	5/9/2011	mg/kg	4	50	*	*	ND	ND	ND	33
Atlas Connector	Paint 11	Concrete Block	4	5/9/2011	mg/kg	0.99	50	*	*	ND	ND	ND	4
Atlas Connector	Paint 11 DUP	Concrete Block	4	5/9/2011	mg/kg	0.63	50	*	*	ND	ND	ND	3.9
CFC Tumbling & Shaping	Paint 12	Concrete	1	5/9/2011	mg/kg	8	50	ND	9.5	ND	ND	ND	9.5
CFC Tumbling & Shaping	Paint 13	Concrete	1	5/9/2011	mg/kg	0.83	50	*	*	ND	ND	ND	5.1
CFC Main Plant	Paint 14	Concrete	4	5/9/2011	mg/kg	12	50	*	*	ND	ND	ND	45
CFC Main Plant	Paint 15	Concrete	1	5/9/2011	mg/kg	3.1	50	*	*	ND	ND	ND	21
CFC Main Plant	Paint 16	Concrete Block	4	5/9/2011	mg/kg	8.5	50	*	*	ND	ND	ND	55
CFC Main Plant	Paint 17	Concrete Block	1	5/9/2011	mg/kg	6.4	50	*	*	ND	ND	ND	77
CFC Main Plant	Paint 18	Concrete Block	1	5/9/2011	mg/kg	14	50	*	*	ND	ND	ND	150
CFC Equipment Storage Room	Paint 20	Concete Block	2	5/10/2011	mg/kg	12	50	*	*	ND	ND	ND	41
CFC Mold Storage Room	Paint 21	Concete Block	2	5/10/2011	mg/kg	2.8	50	*	*	ND	ND	ND	33
CFC Grinding Room	Paint 22	Concete Block	2	5/10/2011	mg/kg	140	50	*	*	ND	ND	ND	380
CFC Grinding Room	Paint 23	Concete Block	2	5/10/2011	mg/kg	170	50	*	*	ND	ND	ND	880
CFC Grinding Room	Paint 24	Concete Block	2	5/10/2011	mg/kg	26	50	*	*	ND	ND	ND	350
CFC Oil Storage Room	Paint 25	Concete Block	4	5/10/2011	mg/kg	15	50	*	*	ND	ND	ND	150
CFC Bronzing Room	Paint 19	Concrete Block	4	5/10/2011	mg/kg	0.71	50	*	*	ND	ND	ND	6.6
CFC Bronzing Room	Paint 26	Concete Block	4	5/10/2011	mg/kg	0.34	50	*	*	ND	ND	ND	3.4
CFC Bronzing Room	Paint 27	Concete Block	4	5/10/2011	mg/kg	0.29	50	*	*	ND	ND	ND	3.4
CFC Bronzing Room	Paint 28	Concete Block	2	5/10/2011	mg/kg	2.4	50	*	*	ND	ND	ND	11
CFC Bronzing Room	Paint 29	Concete Block	4	5/10/2011	mg/kg	3.3	50	*	*	ND	ND	ND	13
		DIOTA DIOTA	<u> </u>								12	- 12	
CFC Boiler Room	Paint 30	Concrete	1	5/10/2011	mg/kg	0.25	50	*	*	ND	ND	ND	ND

- 1. Samples were collected by GZA GeoEnvironmental, Inc. December 27, 2010 and May 9 and May 10, 2011
- 2. Samples were analyzed by Phoenix Environmental Laboratory, Inc. in Manchester, CT.
- 3. Regulatory Criteria refers to TSCA threshold for unrestricted use of porous surfaces (concrete).
- 4. Shaded and bold analysis exceed the TSCA limit for unrestricted use at a PCB release area.
- 5. ND = Not detected above the laboratory reporting limit for this compound.
- 6. "\*" indicates individual Aroclors could not be determined

## TABLE 3C PREVIOUS INTERIOR WALL WIPE PCB RESULTS 326 South Street New Britain, CT

Room	Sample ID	Material	Height Above Floor	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	Total PCBs
CFC Aluminum Foundry	Wipe-1 (4')	Concete Block Wall	4	3/22/2011	μg/100cm <sup>2</sup>	1	10	7.8	ND	ND	ND	ND	7.8
CFC Grinding Room	Wipe-2 (FLOOR)	Concete Floor	0	3/22/2011	μg/100cm <sup>2</sup>	1	10	7.5	ND	3.5	ND	ND	11.0
CFC Grinding Room	Wipe-3 (4')	Concete Block Wall	4	3/22/2011	μg/100cm <sup>2</sup>	4	10	21	ND	ND	ND	ND	21.0
CFC Grinding Room	Wipe-4 (FLOOR)	Concete Floor	0	3/22/2011	μg/100cm <sup>2</sup>	1	10	8.8	ND	5.4	ND	ND	14.2
CFC Grinding Room	Wipe-5 ((1')	Concete Block Wall	1	3/22/2011	μg/100cm <sup>2</sup>	20	10	110	ND	ND	ND	ND	110.0
CFC Grinding Room	Wipe-6 (FLOOR)	Concete Floor	0	3/22/2011	μg/100cm <sup>2</sup>	4	10	26	ND	ND	ND	ND	26.0
CFC Grinding Room	Wipe-7 (4')	Concete Block Wall	4	3/22/2011	μg/100cm <sup>2</sup>	0.8	10	4.6	ND	ND	ND	ND	4.6
CFC Equipment Storage Room	Wipe 20	Concete Block Wall	2	5/10/2010	μg/100cm <sup>2</sup>	1	10	*	*	ND	ND	ND	12
CFC Mold Storage Room	Wipe 21	Concete Block Wall	2	5/10/2010	μg/100cm <sup>2</sup>	0.5	10	*	*	ND	ND	ND	4.2
CFC Grinding Room	Wipe 22	Concete Block Wall	2	5/10/2010	μg/100cm <sup>2</sup>	5	10	*	*	ND	ND	ND	7.9
CFC Grinding Room	Wipe 23	Concete Block Wall	2	5/10/2010	µg/100cm <sup>2</sup>	5	10	*	*	ND	ND	ND	32
CFC Grinding Room	Wipe 24	Concete Block Wall	2	5/10/2010	μg/100cm <sup>2</sup>	5	10	*	*	ND	ND	ND	60
CFC Oil Storage Room	Wipe 25	Concete Block Wall	4	5/10/2010	μg/100cm <sup>2</sup>	0.5	10	*	*	ND	ND	ND	3.6
						-			-				
CFC Bronzing Room	Wipe 26	Concete Block Wall	4	5/10/2010	μg/100cm <sup>2</sup>	0.5	10	*	*	ND	ND	ND	3.6
CFC Bronzing Room	Wipe 27	Concete Block Wall	4	5/10/2010	μg/100cm <sup>2</sup>	0.5	10	*	*	ND	ND	ND	3.3
CFC Bronzing Room	Wipe 28	Concete Block Wall	2	5/10/2010	μg/100cm <sup>2</sup>	0.5	10	*	*	ND	ND	ND	4.5
CFC Bronzing Room	Wipe 29	Concete Block Wall	4	5/10/2010	μg/100cm <sup>2</sup>	0.5	10	*	*	ND	ND	ND	4.8
Atlas Area 1	A1-WIPE-1	Concrete Floor	NA	1/20/2014	μg/100cm <sup>2</sup>	1.0	10	ND	ND	ND	ND	ND	ND
Atlas Area 1	A1-WIPE-2	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	1.1	ND	ND	ND	ND	ND
Atlas Area 1	A1-WIPE-3	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	ND	ND	ND	ND	ND	ND
Atlas Area 1	A1-WIPE-4	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	1.5	ND	ND	ND	ND	ND
Atlas Area 1	A1-WIPE-5	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	ND	ND	ND	ND	ND	ND
Atlas Area 3	A3-WIPE-1	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	ND	ND	ND	ND	ND	ND
Atlas Area 3	A3-WIPE-2	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	ND	ND	ND	ND	ND	ND
Atlas Area 3	A3-WIPE-3	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	ND	ND	ND	ND	ND	ND
Atlas Area 3	A3-WIPE-4	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	1.2	ND	ND	ND	ND	ND
Atlas Area 3	A3-WIPE-5	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	ND	ND	ND	ND	ND	ND
Atlas Area 3	A3-WIPE-DUP	Concrete Floor	NA	1/20/2014	μg/100cm <sup>2</sup>	1.0	10	ND	ND	ND	ND	ND	ND
Atlas Area 3	A3-WIPE-6	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	ND	ND	ND	ND	ND	ND
Atlas Area 3	A3-WIPE-7	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	ND	ND	ND	ND	ND	ND
Atlas Area 3	A3-WIPE-8	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	3.9	ND	ND	ND	ND	ND
Atlas Area 3	A3-WIPE-9	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	2.3	ND	ND	ND	ND	ND
Area 4 (shared loading dock)	A4-WIPE-1	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	ND	ND	ND	ND	ND	ND
Area 4 (shared loading dock)	A4-WIPE-6	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	2.6	ND	ND	ND	ND	ND
Area 4 (shared loading dock)	A4-WIPE-7	Concrete Floor	NA	1/20/2014	μg/100cm2	1.0	10	ND	ND	ND	ND	ND	ND
Atlas	TRIP BLANK	Concrete Floor	NA	1/20/2014	μg/100cm <sup>2</sup>	1.0	10	ND	ND	ND	ND	ND	ND

- 1. Samples were collected by GZA GeoEnvironmental, Inc. on March 22 and May 10, 2011.
- 2. Samples were analyzed by Phoenix Environmental Laboratory, Inc. in Manchester, CT (May 10 samples) or Contest Analytical Laboratory in East Longmeadow, MA (March 22 samples).
- 3. Regulatory Criteria refers to TSCA allowable limit for remediated surfaces or continued use of porous surfaces (concrete) after decontamination.
- 4. Shaded and bold analysis exceed the TSCA allowable limit.
- 5. ND = Not detected above the laboratory reporting limit for this compound.
- 6. "\*" indicates individual Aroclors could not be determined
- 7. A3-WIPE-DUP sample collected at same location as A3-WIPE-5.

### TABLE 3D PREVIOUS INDOOR AIR PCB RESULTS

### 326 South Street New Britain, CT

Sample ID	Room/Location	Inside/Outside	Height Above Floor	Sample Date	Units	Laboratory Reporting Limit	Regulatory Criteria - NIOSH, REL	Regulatory Criteria - OSHA, REL	Total PCBs
I-AIR-1	CFC Area 9 (lunch room)	Inside	3	3/22/2011	mg/m <sup>3</sup>	0.00041	0.001	0.5	ND
I-AIR-2	CFC Area 7 (office)	Inside	3	3/22/2011	mg/m <sup>3</sup>	0.00054	0.001	0.5	ND
I-AIR-3	CFC Area 5 (shipping)	Inside	4	3/22/2011	mg/m <sup>3</sup>	0.00041	0.001	0.5	ND
I-AIR-4	CFC Area 10 (Alum. Foundry)	Inside	3	3/22/2011	mg/m <sup>3</sup>	0.00042	0.001	0.5	ND
I-AIR-5	CFC Grinding Room	Inside	3	3/22/2011	mg/m <sup>3</sup>	0.00041	0.001	0.5	ND
I-AIR-6	CFC Grinding Room	Inside	3	3/22/2011	mg/m <sup>3</sup>	0.00097	0.001	0.5	ND
I-AIR-7	CFC Grinding Room	Inside	3	3/22/2011	mg/m <sup>3</sup>	0.00043	0.001	0.5	ND
I-AIR-8	CFC Outside Shipping Area	Outside	1	3/22/2011	mg/m <sup>3</sup>	0.00005	0.001	0.5	ND

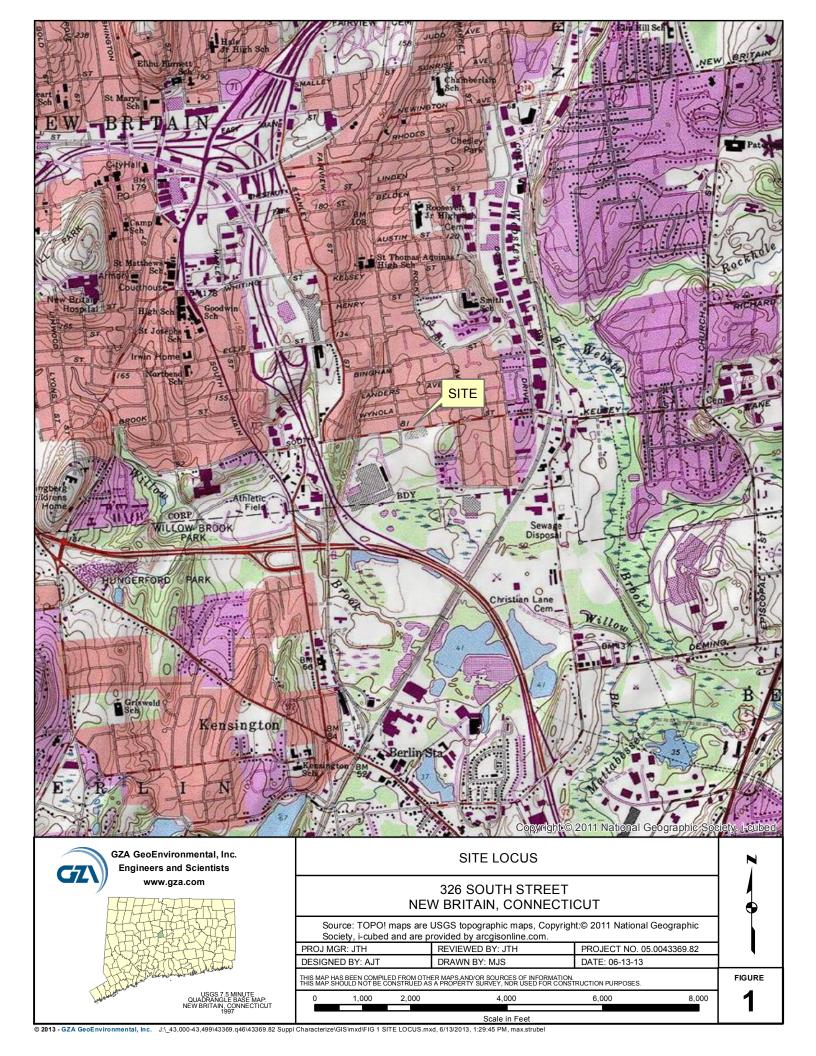
- 1. Samples were collected by GZA GeoEnvironmental, Inc. March 22, 2011.
- 2. Samples were analyzed by Contest Environmental Laboratory, in East Longmeadow, MA.
- 3. Regulatory Criteria refers to NIOSH and OSHA recommended limits for PCBs in air.
- 4. Shaded and bold analysis exceed one or more of the regulatory recommended limits.
- 5. ND = Not detected above the laboratory reporting limit for this compound.

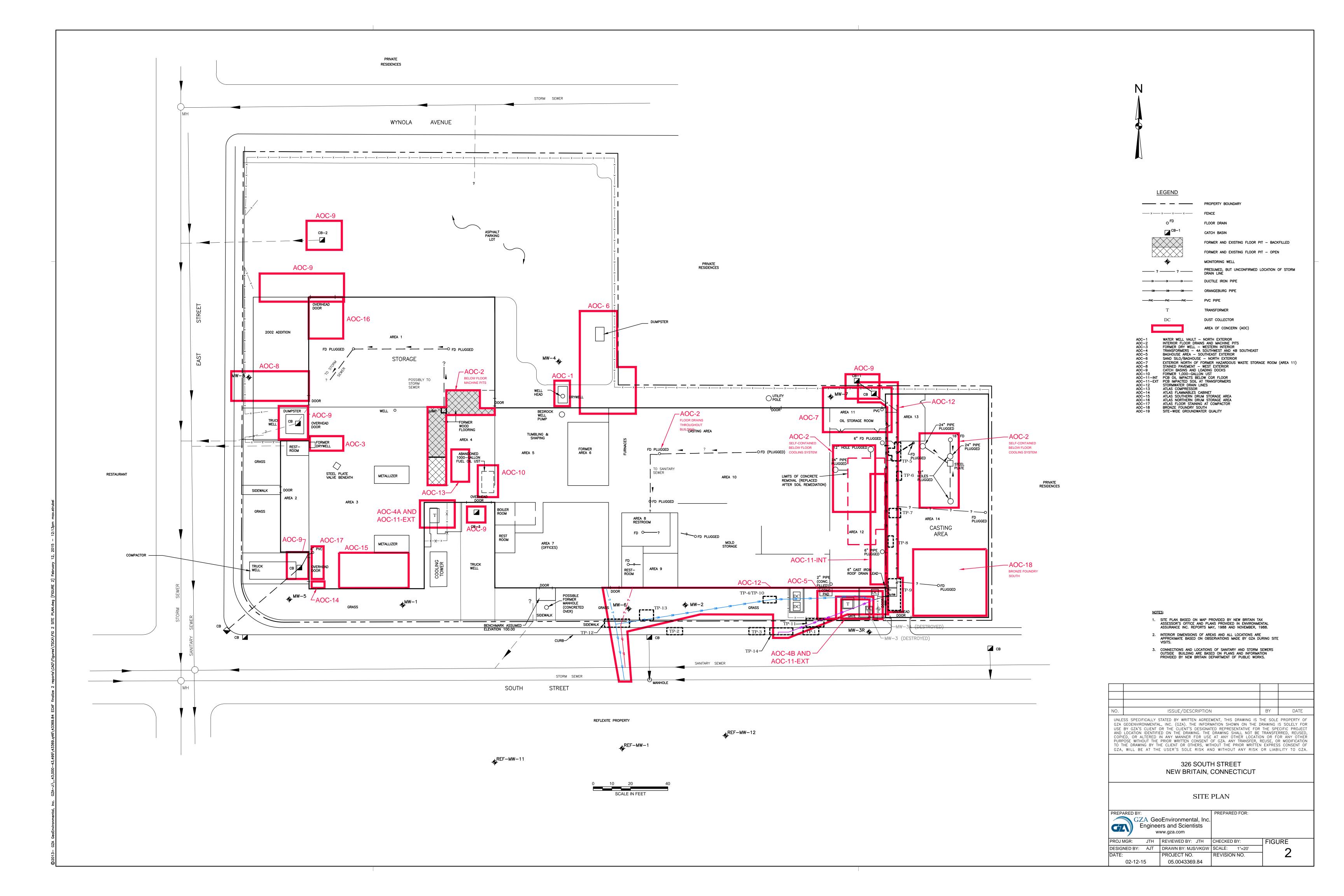
## TABLE 4 INTERIOR CEILING PCB RESULTS 326 South Street New Britain, CT

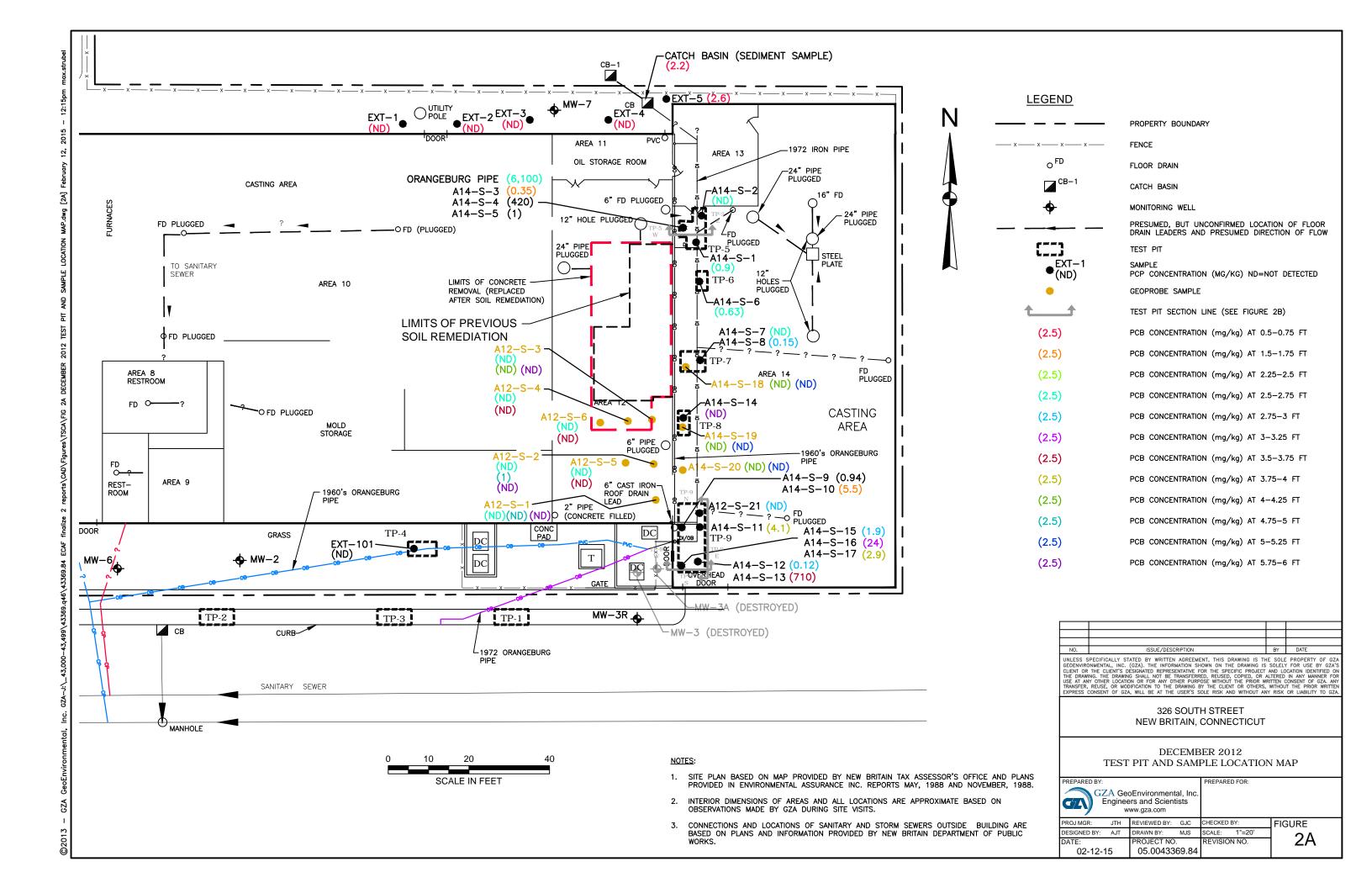
Room	Sample ID	Material	Sample Date	Units	Reporting Limit	Regulatory Criteria	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	All other Aroclors	Total PCBs
Atlas Compressor Room	A4-Ceil-1	Hexane Wipe	12/24/2012	$\mu g/100 cm^2$	0.5	10	*	ND	ND	ND	ND	0.8
CFC Main Plant	A10-Ceil-1	Hexane Wipe	12/24/2012	μg/100cm <sup>2</sup>	0.5	10	0.5	ND	ND	ND	ND	0.5
CFC Main Plant	A10-Ceil-2	Hexane Wipe	12/24/2012	$\mu g/100 cm^2$	0.5	10	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-Ceil-3	Hexane Wipe	12/24/2012	$\mu g/100 cm^2$	0.5	10	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-Ceil-4	Hexane Wipe	12/24/2012	$\mu g/100 cm^2$	0.5	10	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-Ceil-5	Hexane Wipe	12/24/2012	$\mu g/100 cm^2$	0.5	10	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-Ceil-11	Hexane Wipe	12/24/2012	$\mu g/100 cm^2$	0.5	10	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-Ceil-12	Hexane Wipe	12/24/2012	$\mu g/100 cm^2$	0.5	10	ND	ND	ND	ND	ND	ND
CFC Main Plant	A10-Ceil-13	Hexane Wipe	12/24/2012	μg/100cm <sup>2</sup>	0.5	10	ND	ND	ND	ND	ND	ND
CFC Oil Storage Room	A11-Ceil-1	Hexane Wipe	12/24/2012	$\mu g/100 cm^2$	0.5	10	ND	ND	ND	ND	ND	ND
CFC Grinding Room	A12-Ceil-1	Hexane Wipe	12/24/2012	μg/100cm <sup>2</sup>	0.5	10	ND	ND	ND	ND	ND	ND
CFC Grinding Room	A12-Ceil-2	Hexane Wipe	12/24/2012	$\mu g/100 cm^2$	0.5	10	ND	ND	ND	ND	ND	ND
CFC Grinding Room	A12-Ceil-3	Hexane Wipe	12/24/2012	$\mu g/100 cm^2$	0.5	10	ND	ND	ND	ND	ND	ND
CFC Grinding Room	A12-Ceil-4	Hexane Wipe	12/24/2012	μg/100cm <sup>2</sup>	0.5	10	ND	ND	ND	ND	ND	ND
CFC Grinding Room	A12-Ceil-5	Hexane Wipe	12/24/2012	μg/100cm <sup>2</sup>	0.5	10	ND	ND	ND	ND	ND	ND

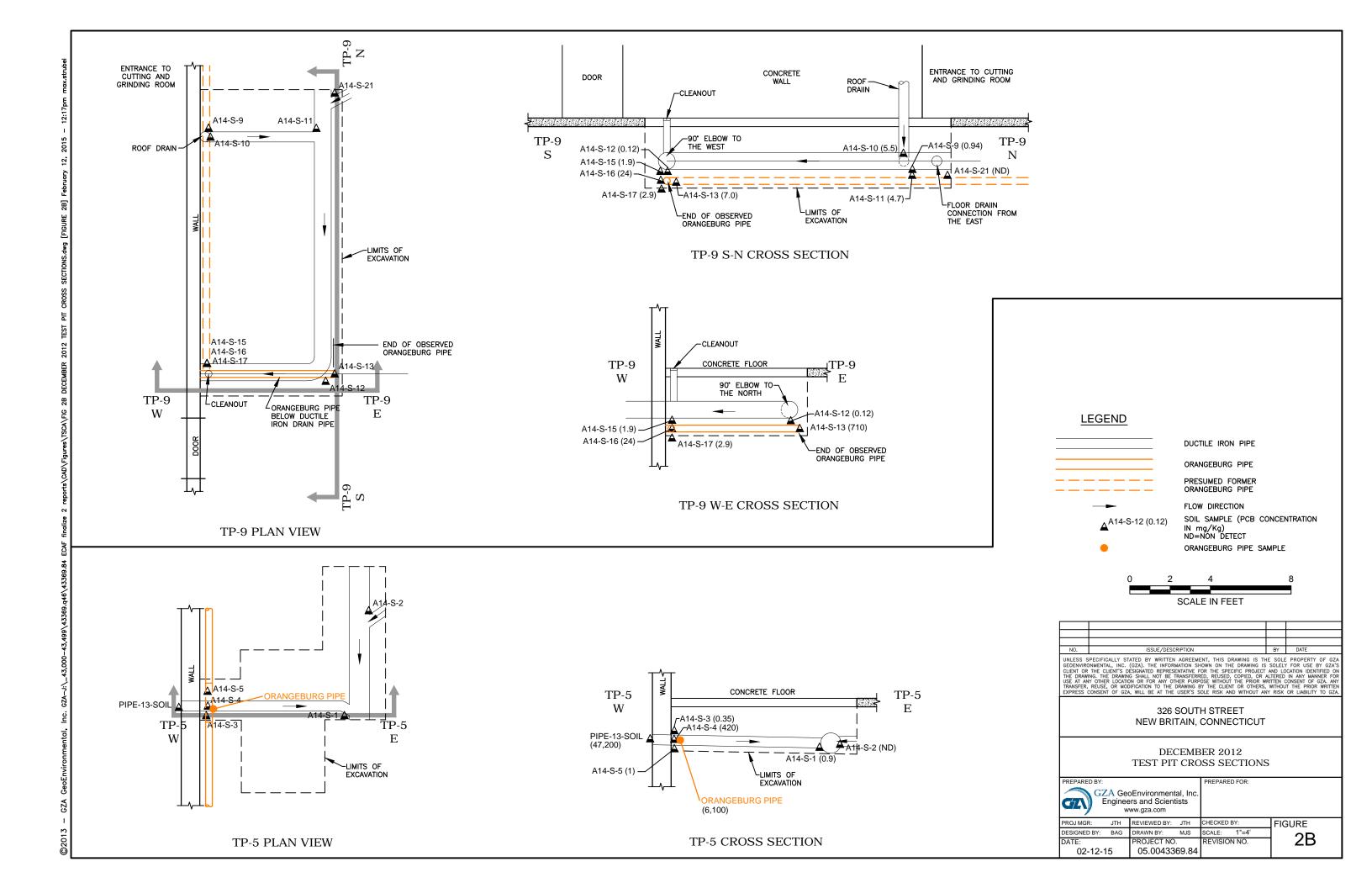
- 1. Samples were collected by GZA GeoEnvironmental, Inc. December 24, 2012
- 2. Samples were analyzed by Phoenix Environmental Laboratory, Inc. in Manchester, CT.
- 3. Regulatory Criteria refers to TSCA allowable limit for continued use of porous surfaces (concrete).
- 4. Shaded and bold analysis exceed the TSCA allowable limit.
- 5. ND = Not detected above the laboratory reporting limit for this compound.
- 6. "\*" indicates individual Aroclors could not be determined.
- 7. "µg" is micrograms.

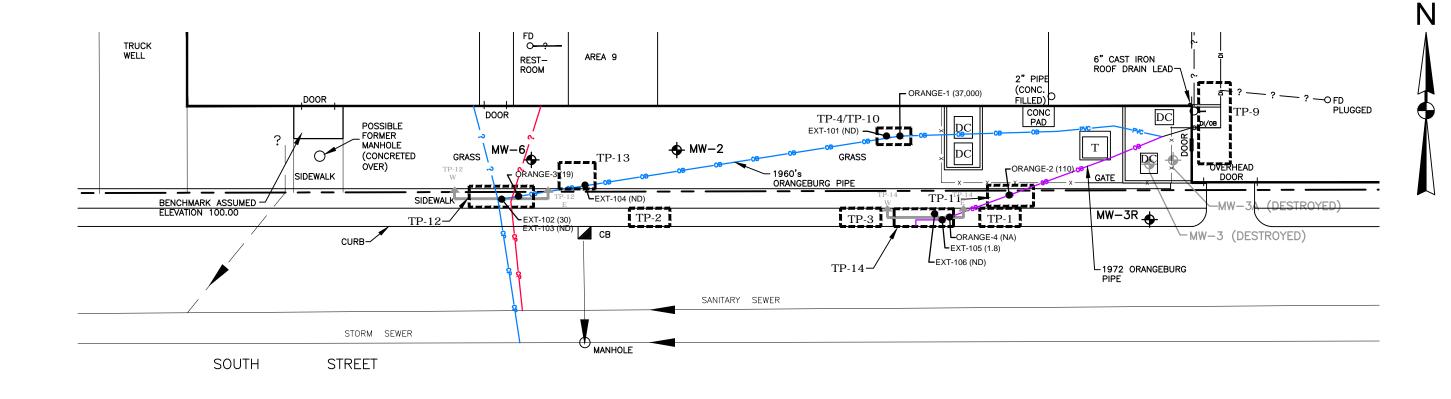






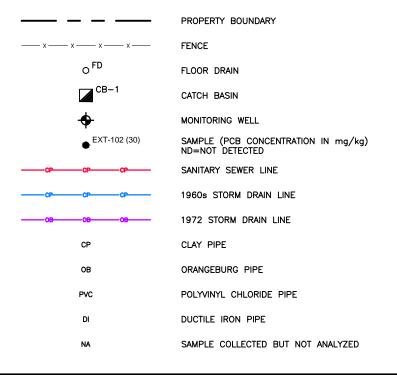












### NOTES:

- SITE PLAN BASED ON MAP PROVIDED BY NEW BRITAIN TAX ASSESSOR'S OFFICE AND PLANS PROVIDED IN ENVIRONMENTAL ASSURANCE INC. REPORTS MAY, 1988 AND NOVEMBER, 1988.
- 2. INTERIOR DIMENSIONS OF AREAS AND ALL LOCATIONS ARE APPROXIMATE BASED ON OBSERVATIONS MADE BY GZA DURING SITE VISITS
- 3. CONNECTIONS AND LOCATIONS OF SANITARY AND STORM SEWERS OUTSIDE BUILDING ARE BASED ON PLANS AND INFORMATION PROVIDED BY NEW BRITAIN DEPARTMENT OF PUBLIC WORKS.

NO.	ISSUE/DESCRIPTION	BY	DATE

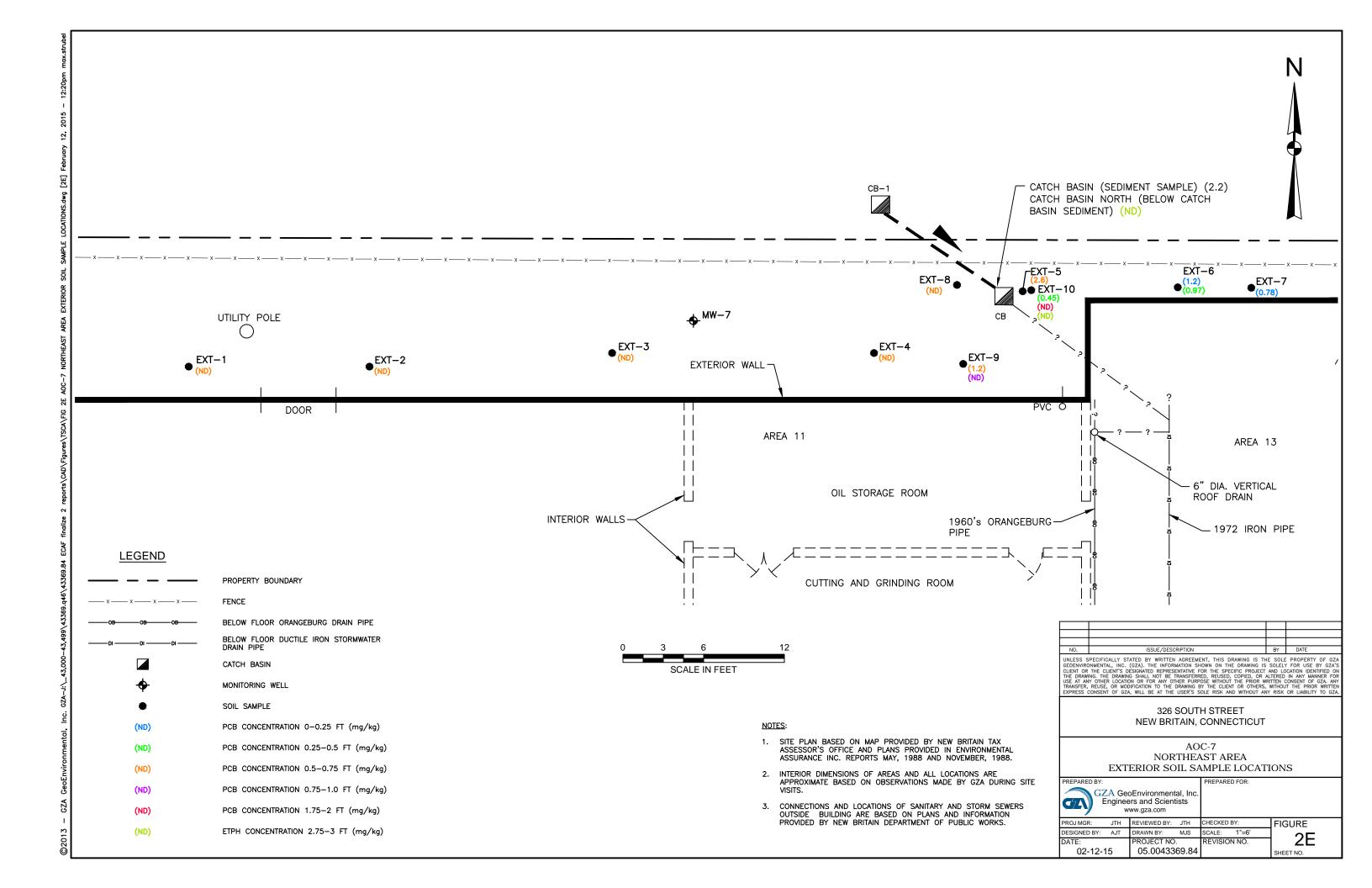
UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PODJECT AND LOCATION IDENTIFIED ON THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PROW WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

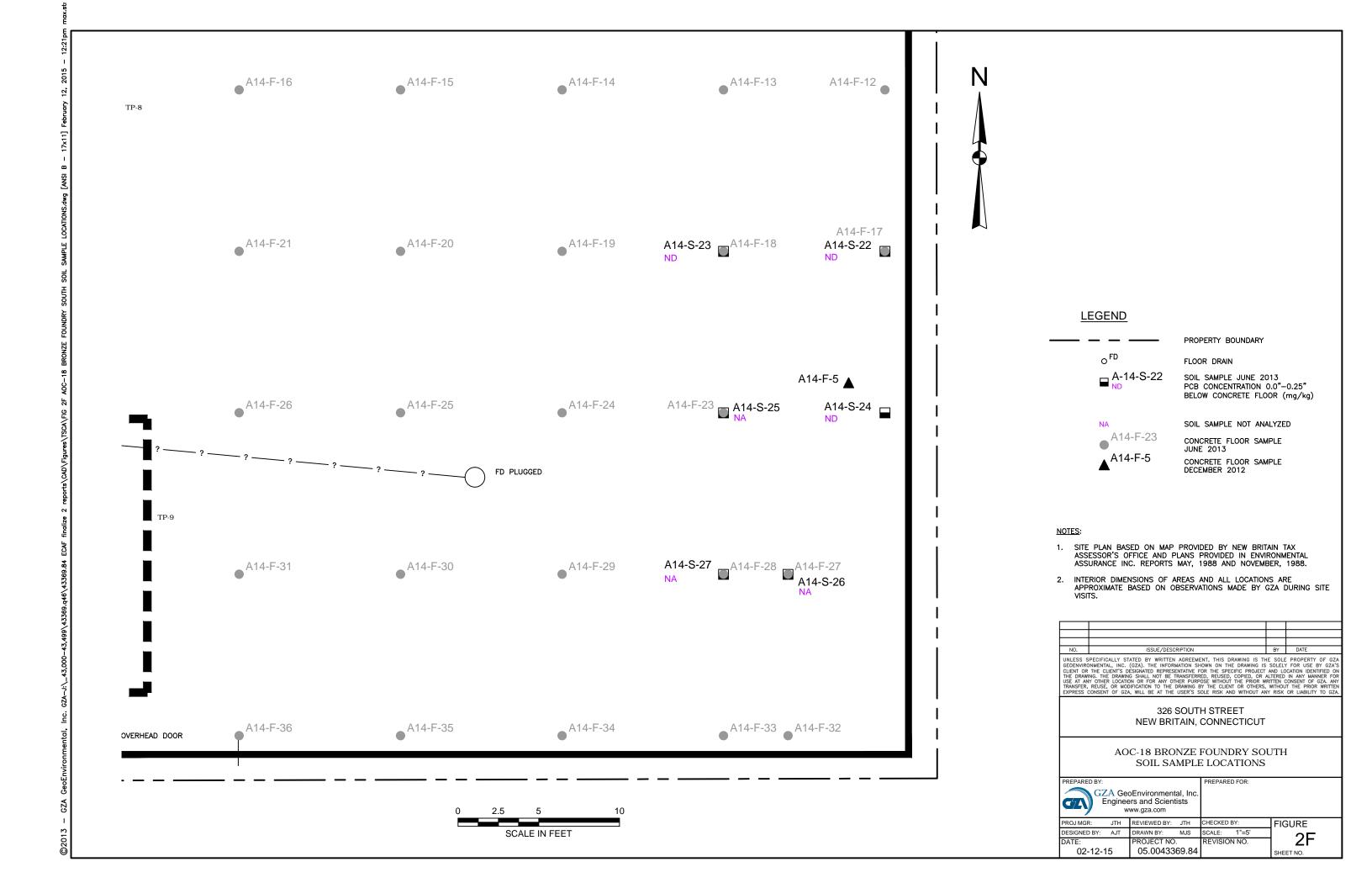
### 326 SOUTH STREET NEW BRITAIN, CONNECTICUT

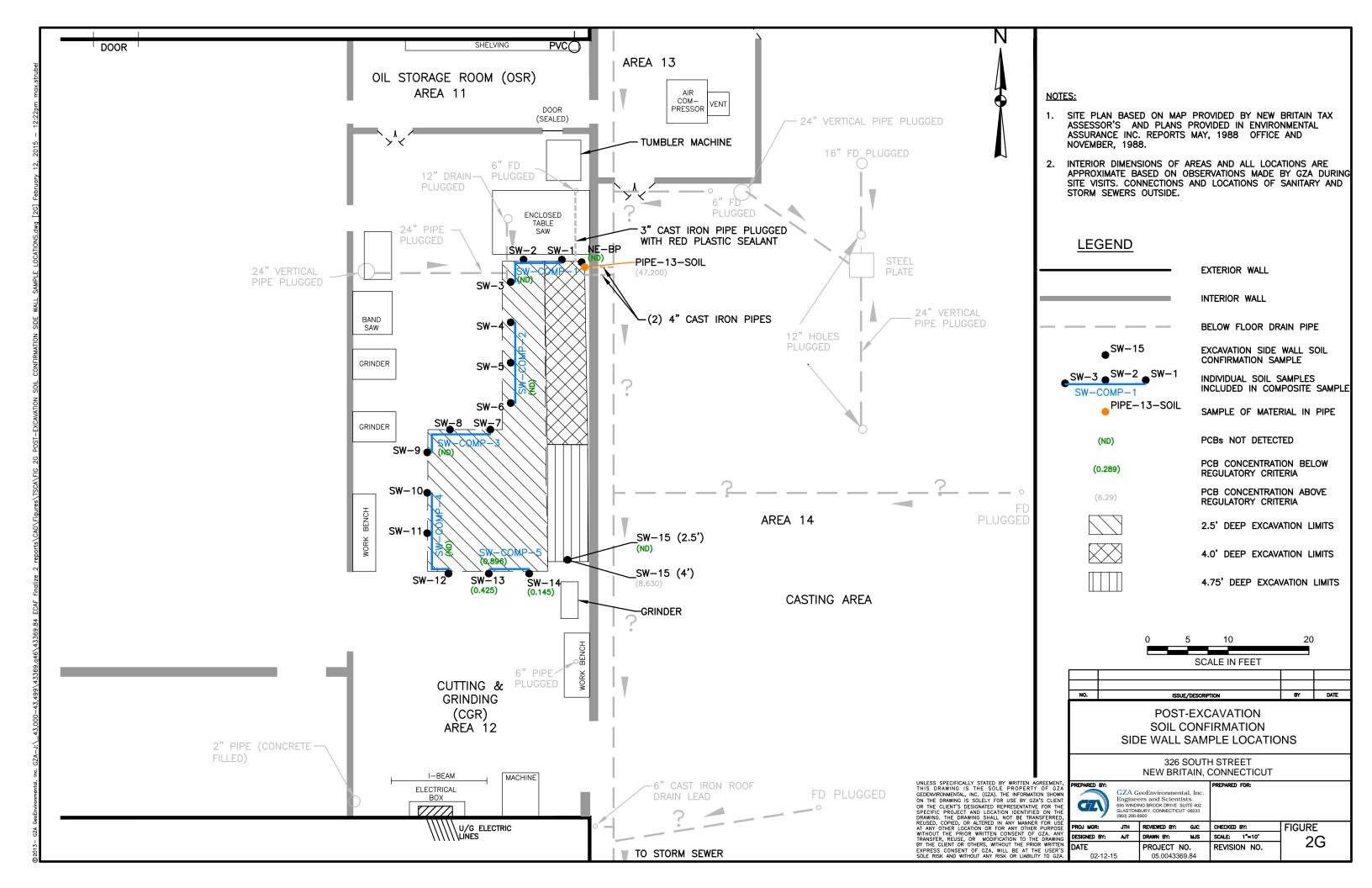
JULY 2013 TEST PIT AND SAMPLE LOCATION MAP

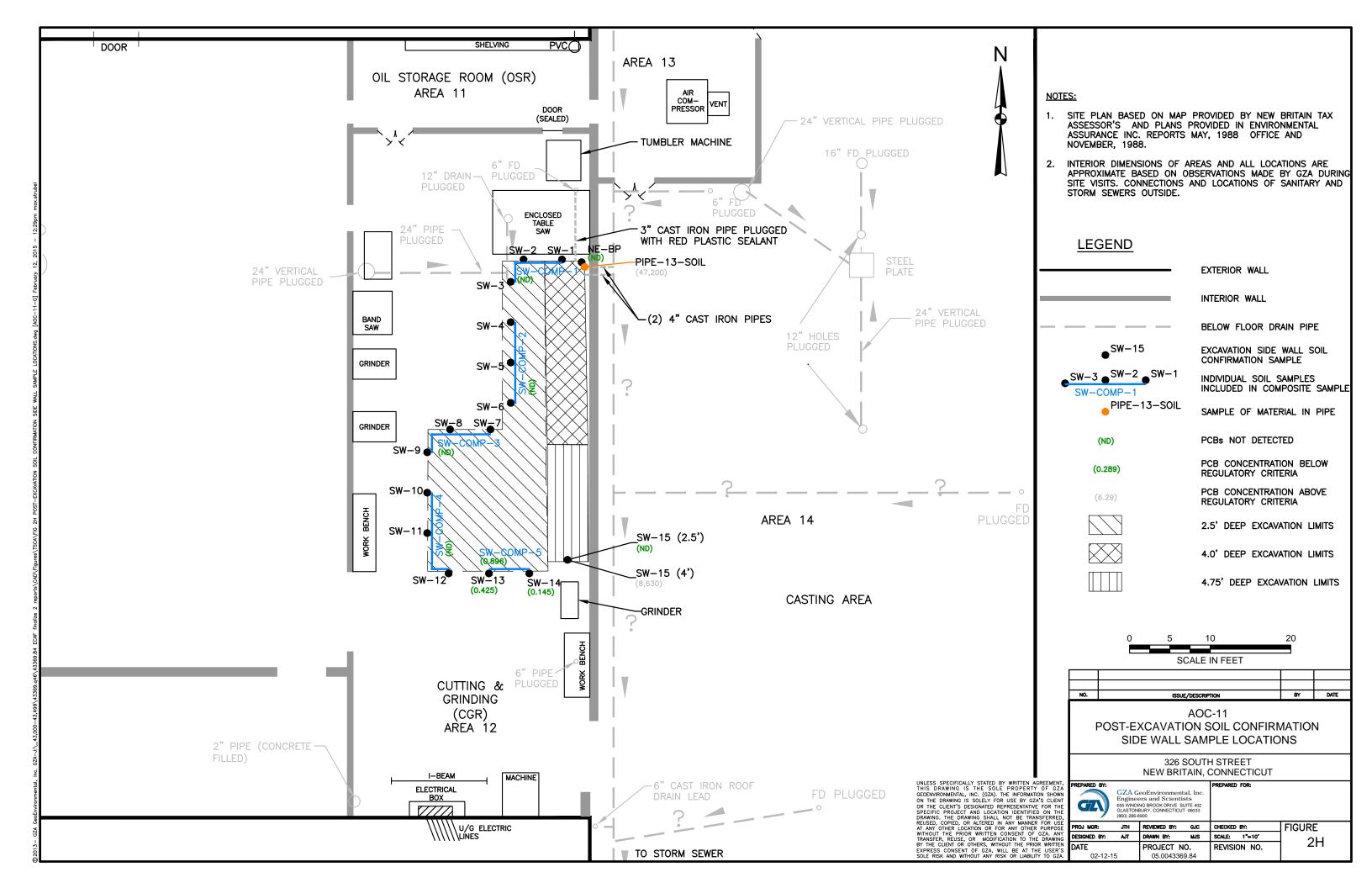
Ξ	PREPARED BY:		PREPARED FOR:	
	Enginee	Environmental, Inc. ers and Scientists ww.gza.com		
	PROJ MGR: JTH	REVIEWED BY: JTH	CHECKED BY:	FIGURE
	DESIGNED BY: AJT	DRAWN BY: MJS	SCALE: 1"=20'	20
	DATE:	PROJECT NO.	REVISION NO.	20
	02-12-15	05.0043369.84		SHEET NO.

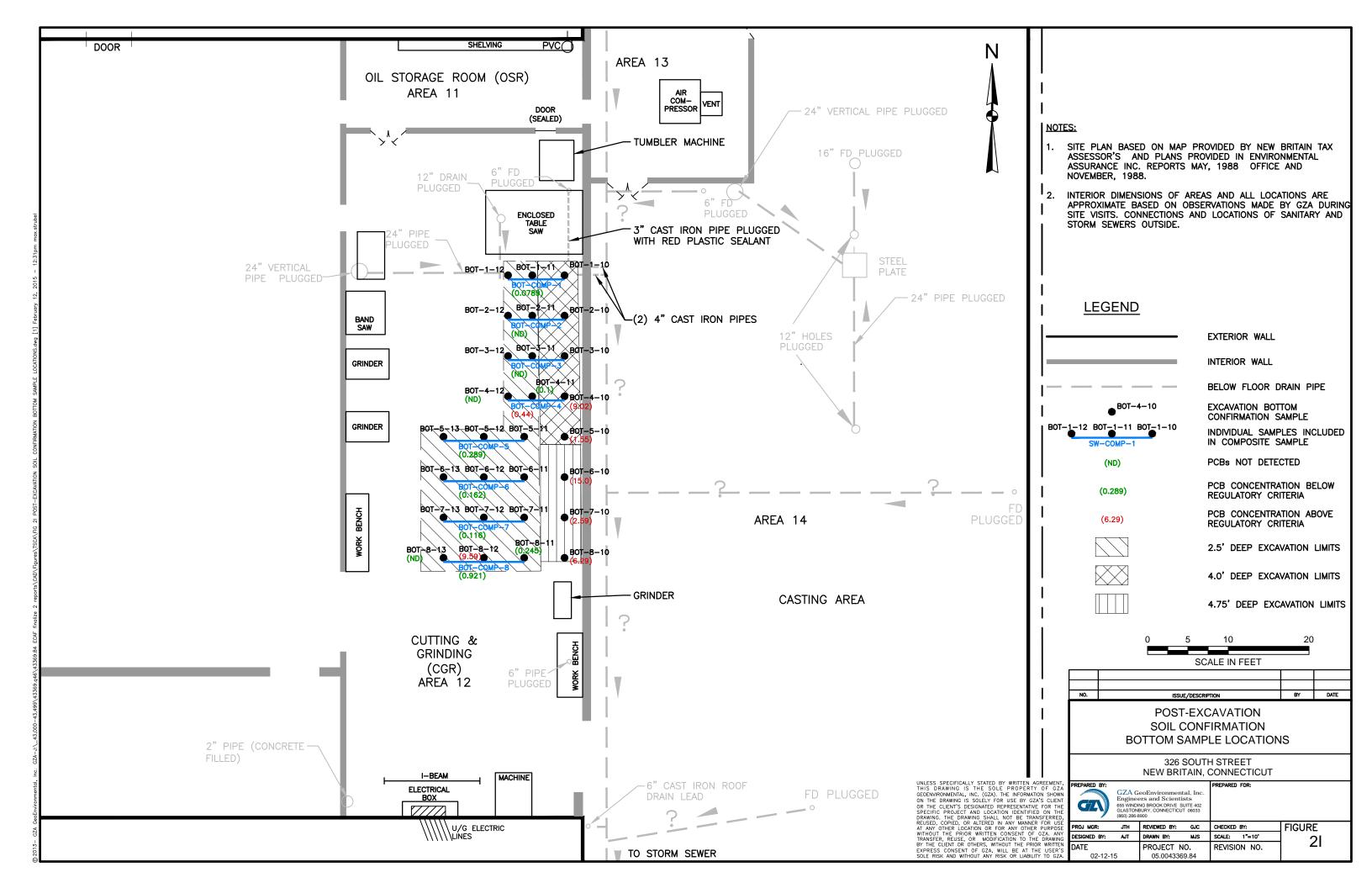
TP-14 W TP-14 E ROAD — SURFACE EXT-106 CURB CONCRETE COVER ORANGE-4 (NA) 8" ORANGEBURG PIPE EXT-105 (1.8) ORANGE-2 (110) BOTTOM OF — TEST PIT BURIED CATCH BASIN EXT-106 (4-4.25) (ND) APPROXIMATE BOTTOM OF CATCH BASIN <u>√</u> EXT-106 (5-5.25) (NA) **EXT-106** (5.75-6) (NA) **TP-14 CROSS SECTION** SCALE: 1"=2' **LEGEND** TP-12 W TP-12 E CLAY PIPE ORANGEBURG PIPE ORANGE-3 (19) ORANGEBURG PIPE SAMPLE (PCB CONCENTRATION IN mg/Kg) △A14-S-12 (0.12) SOIL SAMPLE (PCB CONCENTRATION IN mg/Kg) ND=NON DETECT NA SAMPLE COLLECTED BUT NOT ANALYZED 8" ORANGEBURG PIPE-ISSUE/DESCRIPTION -8" CLAY PIPE ORANGE-3 (19) "T" TO STORM LINE— IN STREET AND TO BUILDING ▲ EXT-102 (30) 326 SOUTH STREET NEW BRITAIN, CONNECTICUT EXT-103 (ND) 8" CLAY PIPE --45° CONNECTOR TO SANITARY SEWER IN STREET AND REST TEST PIT CROSS SECTIONS ROOMS IN BUILDING GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com **TP-12 CROSS SECTION** JTH REVIEWED BY: JTH CHECKED BY: FIGURE DESIGNED BY: AJT DRAWN BY: MJS SCALE: AS NOTED 2D SCALE: 1"=2' ROJECT NO. 05.0043369.84 02-12-15

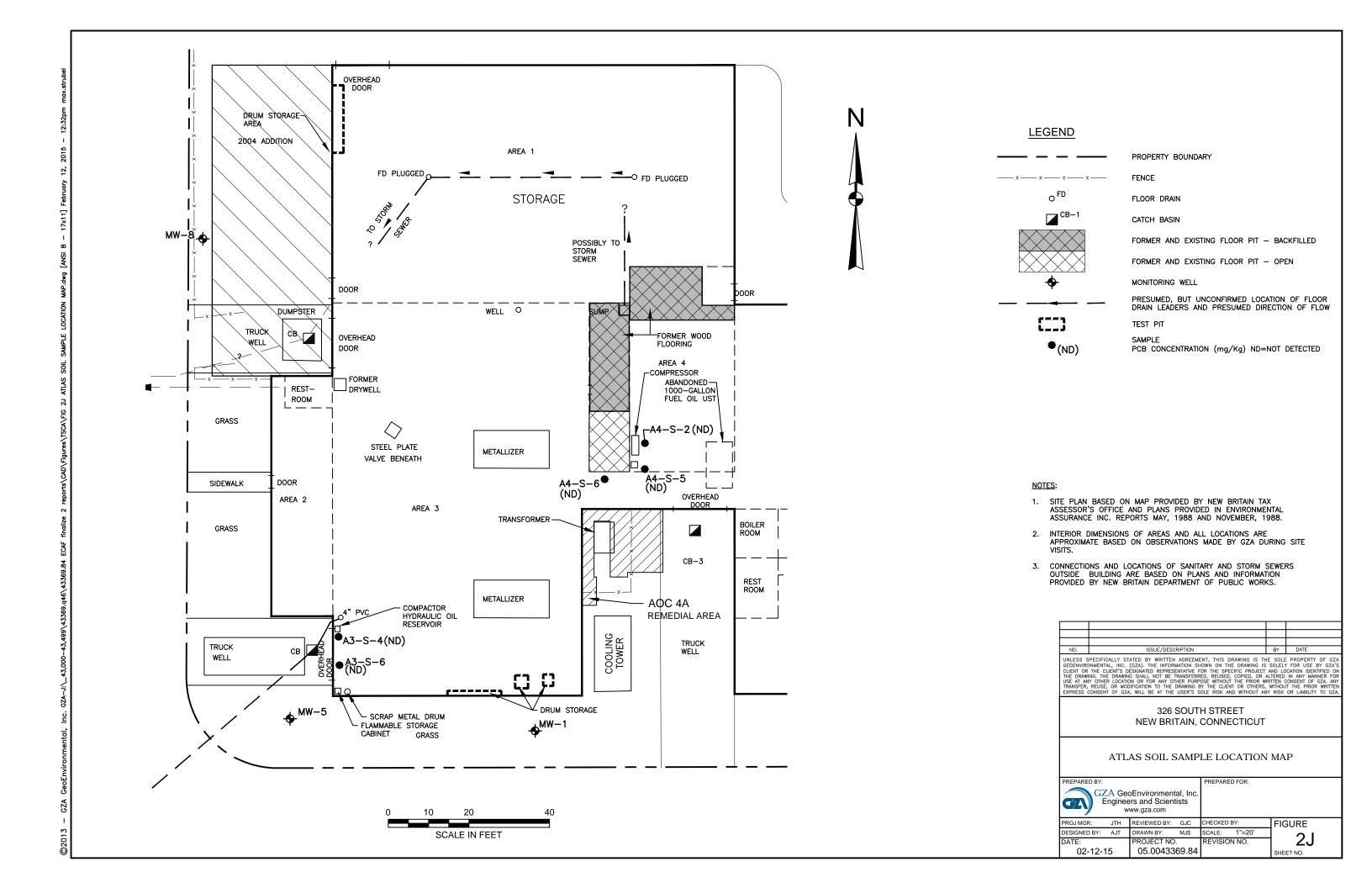


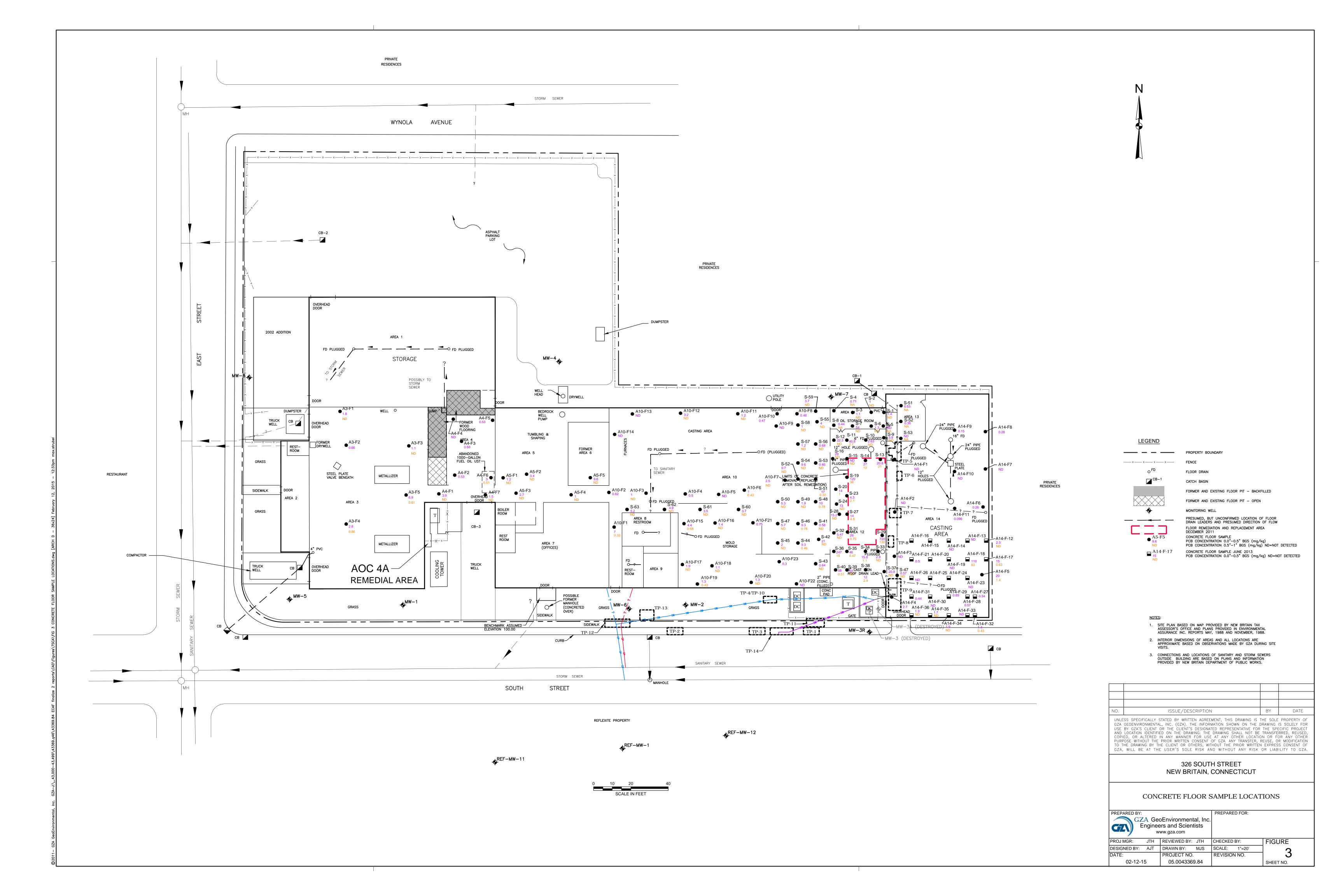


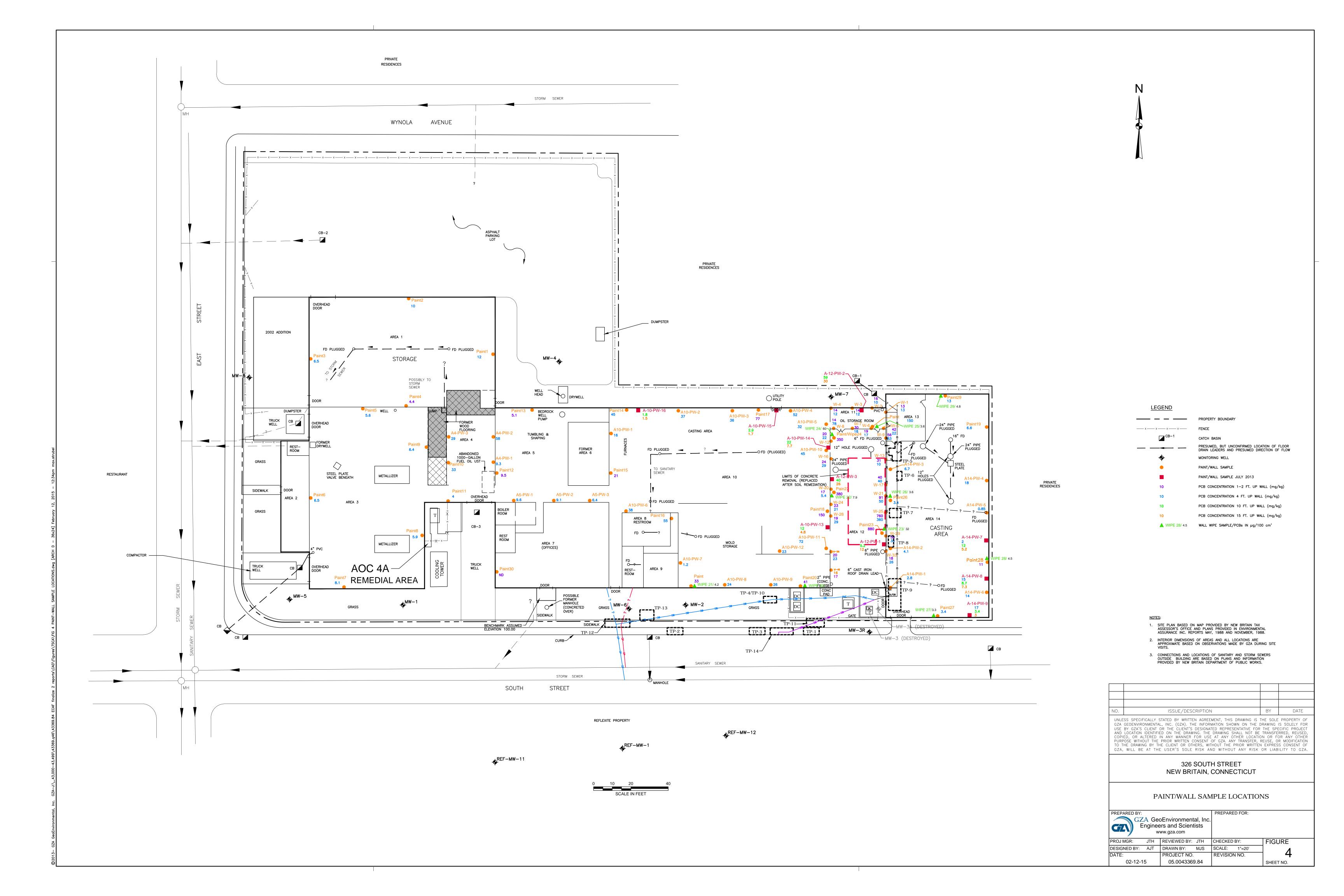


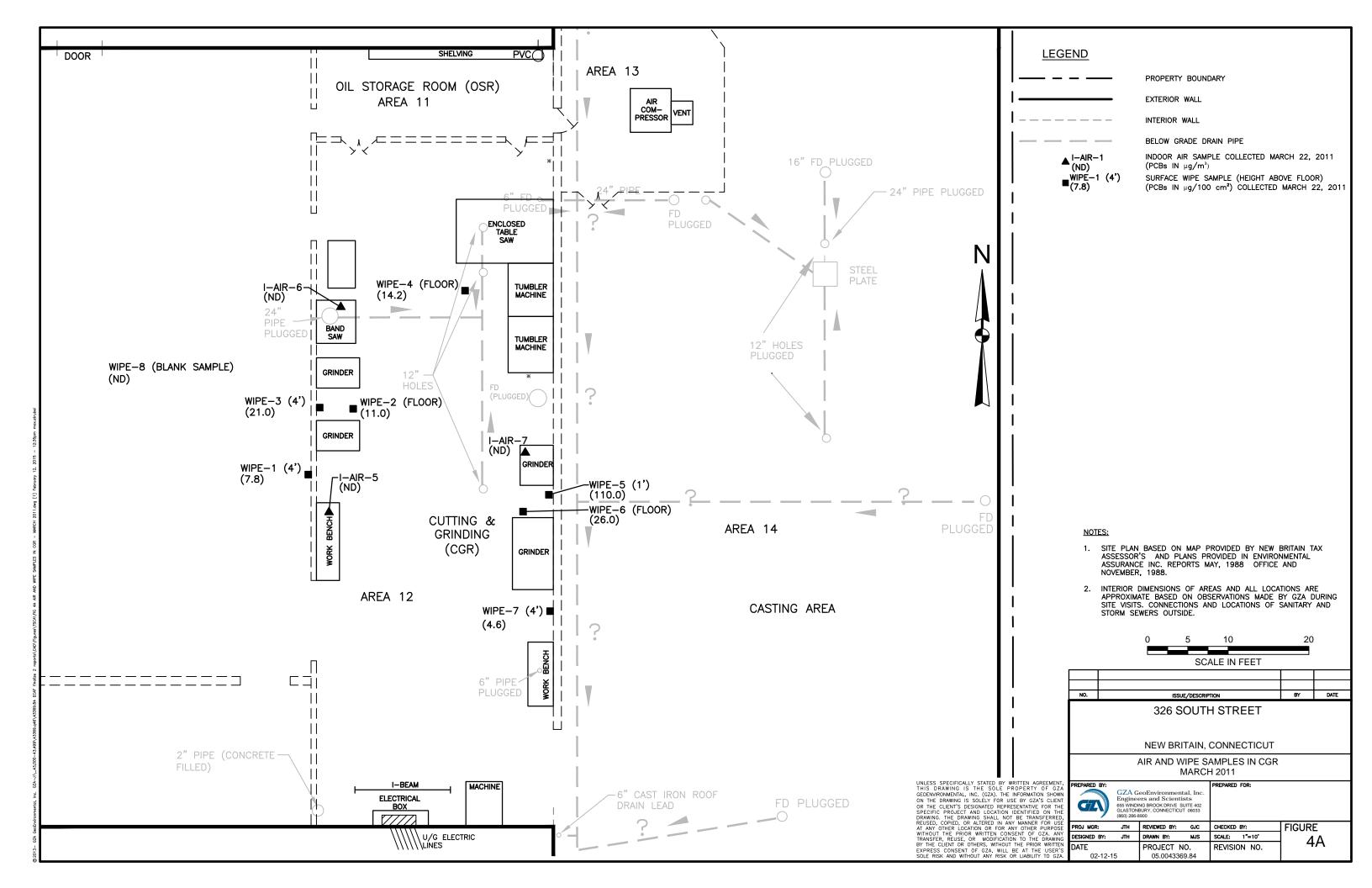


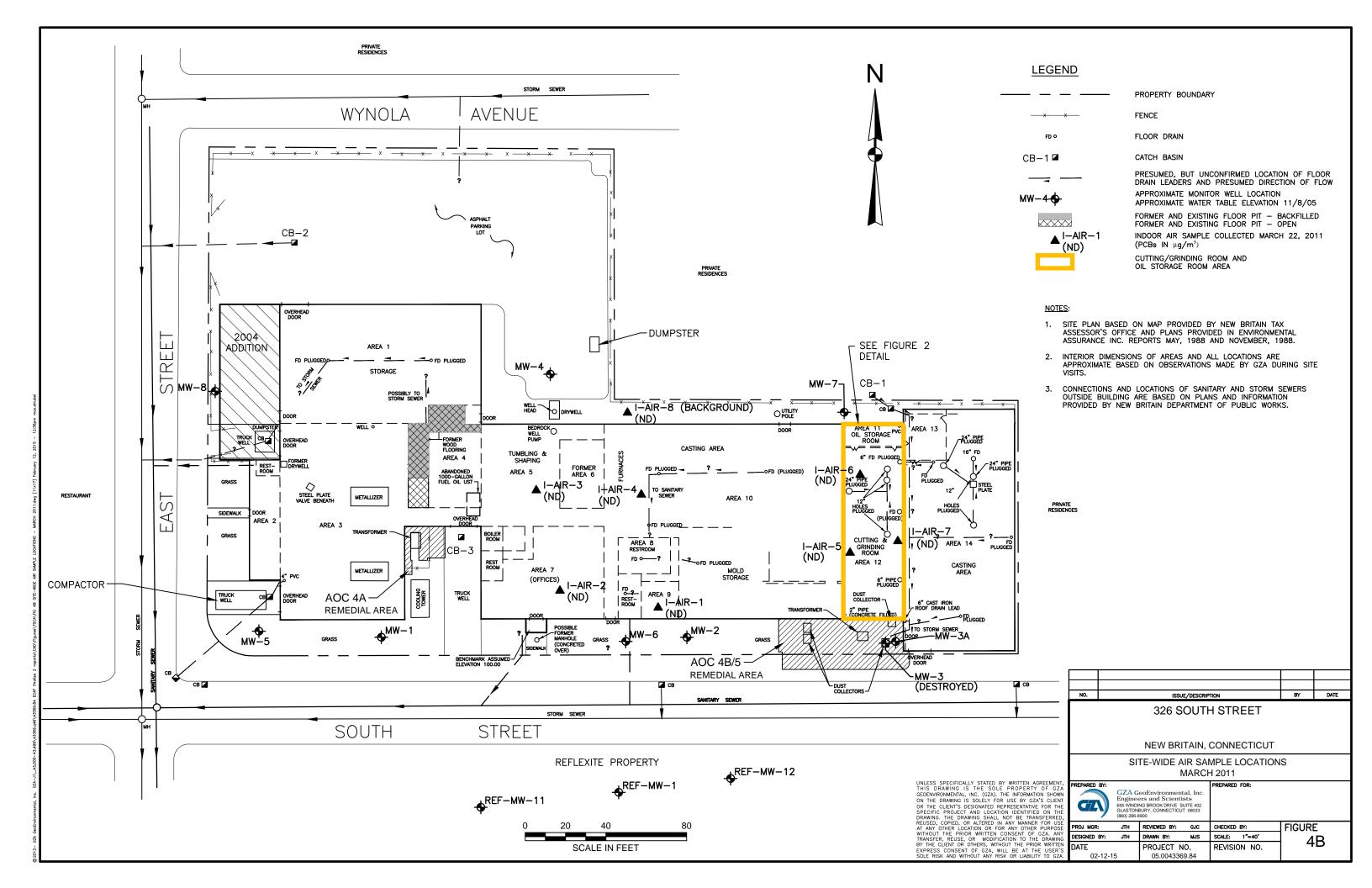


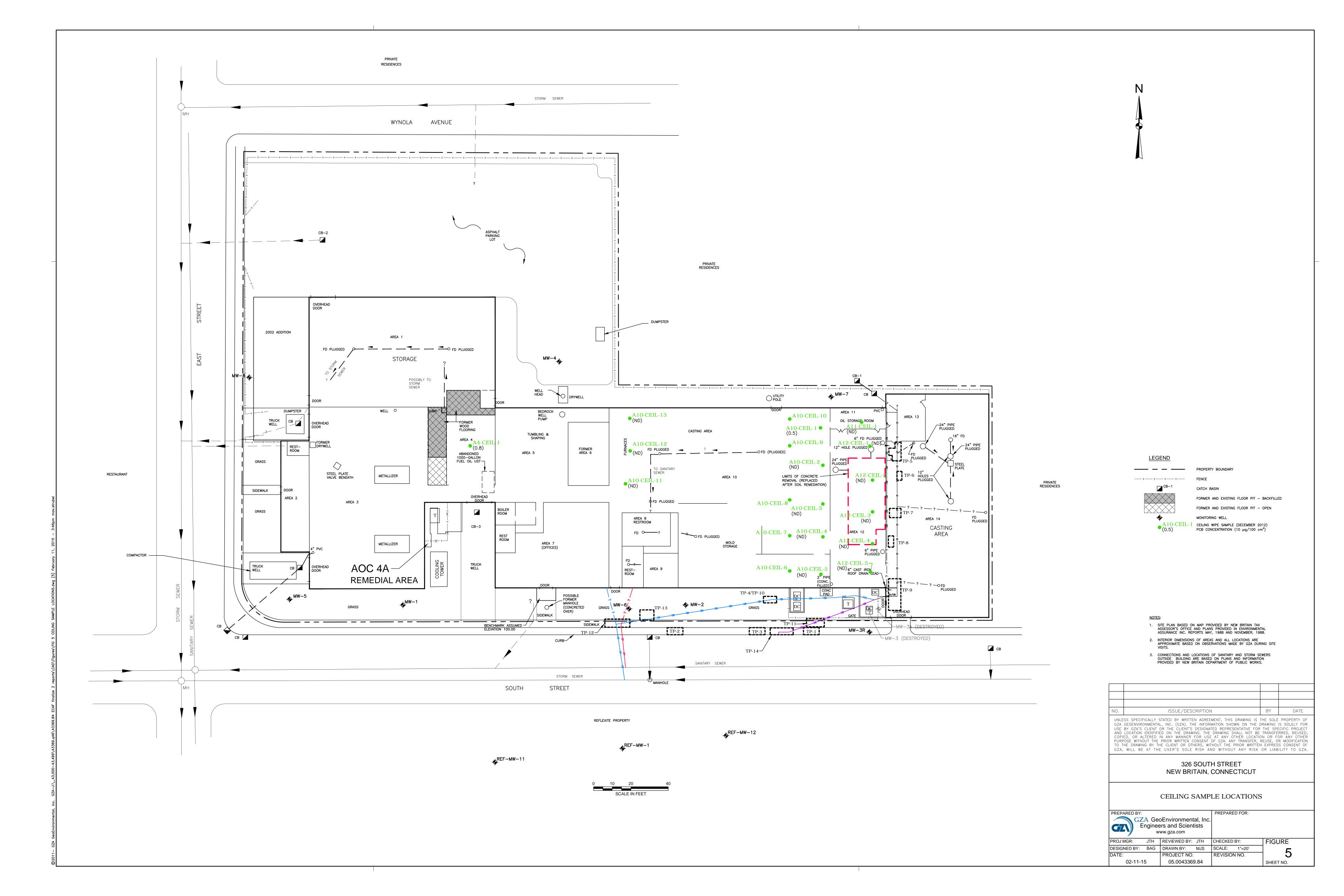












APPENDIX A LIMITATIONS

## **GEOHYDROLOGICAL LIMITATIONS**

#### **Subsurface Conditions**

- The generalized soil profile(s) provided in our Report and on our subsurface exploration logs are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs.
- 2. Water level readings have been made in test holes and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. However, fluctuations in the level of the groundwater occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

# Compliance with Codes and Regulations

3. We used reasonable care in identifying and interpreting applicable codes and regulations. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

# Screening and Analytical Testing

- 4. We collected environmental samples at the locations identified in the report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, and/or air. Future Site activities and uses may result in a requirement for additional testing.
- 5. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.
- 6. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

#### Interpretation of Data

7. Our opinions are based on available information, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

## Cost Estimates

8. Unless otherwise stated, our cost estimates are for comparative or general planning purposes. These estimates may involve approximate quantity estimates. Note that these quantity estimates may be not sufficiently accurate to develop construction bids, or to predict the actual cost of work addressed in this Report. Further, since we have no control over the labor and material costs required to plan and execute the anticipated work, our estimates were made based on our experience and readily available information. Actual costs may change over time and could be significantly more, or less, than those indicated in the Report.

# Risk Characterization

9. Our risk evaluation was performed in accordance with generally accepted practices of appropriate federal and/or state regulatory agencies, and of other consultants undertaking similar studies at the

same time, for similar purposes, and under similar circumstances. The findings of the risk evaluation are dependent on the numerous assumptions and uncertainties inherent in the risk assessment process. Sources of uncertainty may include Site conditions; Site use; the nature, extent, concentration and distribution of contaminants; and the available toxicity information. Consequently, the findings of the risk assessment are not an absolute characterization of actual risks; but rather serve to highlight potential incremental risks associated with activities indicated in the Report. Actual risks may be other than indicated in the Report.

## **Additional Services**

10. We recommend that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development and/or redevelopment at the Site. This will allow us the opportunity to: 1) observe conditions and compliance with our design concepts and opinions; 2) allow for changes in the event that conditions are other than anticipated; 3) provide modifications to our design; and 4) assess the consequences of changes in technologies and/or regulations.

APPENDIX B
TEST PIT/BORING LOGS

			SF	IALLOV	W SOIL S	AMPLE	FIELD	LOG			
GZA GeoEnvironmental 655 Winding Brook Driv Glastonbury, CT 06033 Phone: (860) 286-8900			Project Name Location:	:	PROJECT Cor 326 South	nmercial Found Street, New B	dry	-	Date:         12/22/12         Page 1 of 1           File No.         43369.82           GZA Staff/Sampler:         BAG/SJP		
Air Temperature (°F): Weather Conditions:	65 Indoor		Sample Met		IPLING EQUIP		d Auger		OVA/OVM: N/A Calibration Standard: 100 ppm Source lamp: 10.6 eV Instrument Reading (start): 93.6		
			Grab	Hand Auger	Hand	Core/Borer	Dredge	Other	Instrument Reading (finish): 99.7		
Sample ID	Time	Sample Depth (FT)	OVM Reading (PPM)	Odor	Ground Cover (asphlt/cnc.gras)	Cover Thickness (in)			Sample Description		
A4-S-2	850	0-2'	ND	None	Concrete	5	20" recovery,	0-10": Dai	n, medium SAND, some Silt, little Gravel k brown, medium SAND, some Silt, little Gravel, 10-20":		
A4-S-5 A4-S-6	915	0-2'	ND ND	None None	Concrete  Concrete	6	Dark brown, soft SILT, little Sand and Gravel 20" recovery, 0-3": ASPHALT and BRICK, 3-20": Dark brown, medium SAND and SILT, little Gravel				
A3-S-4	1005	0-2'	ND	Oily	Concrete	8	18" recovery,	Dark brow	n, medium to coarse SAND, little Silt, some Gravel		
A3-S-4	1020	2-4'	ND	Slight oily	-	-	12" recovery, 20" recovery,	ry, Dark brown, medium SAND, trace Silt, little Gravel ry, 0-3": ASPHALT and BRICK, 3-20": Dark brown, medium SAND and			
A4-S-6	920	0-2'	ND	None	Concrete	6	SILT, little G	ravel			
A3-S-6	1030	2-4'	ND	None	-	-	14" recovery,	Dark brow	n, medium SAND and SILT, little Gravel		
									T		
		0.40	1	NSITY		ABBREVIATION	NS	ORGANIC MATERIALS			
Fines (silts & clay)  Fine sand.  Med. Sand  C. Sand  Fine sravel  SOIL CONDITIONS  Trace (TRACE (TRACE (TRACE))  Finest visible particles. LITTLE (L.)  [Granular sugar].  SOME (S.)  1/6"-1/4" (rock salt). AND  1/4"-3/4" (pea to grape).			0-10% 10-20% 20-35% 35-50%	V. Loose Loose M. Dense Dense	V. Soft Soft M. Stiff	V - Very GR - Gray BN - Brown YEL - Yellow RD - Red	F - Fine M - Medium C - Coarse F/M - Fine to Me		Organic Silt: Dark gray to black, light weight, often H2S odor.  Humus: Decomposed root/twig/leaf litter - forest areas.  Root Mat: Living root fiber structures, found in marshes.  Peat: Fossiliferous root mat - decomposed fiber structure.  Note: e.g. logs. branches, roots, shells, black streaks, H2S odor.		

			SI	HALLOV	W SOIL S	SAMPLE	<b>FIELD</b>	LOG			
GZA GeoEnvironment 655 Winding Brook Dr Glastonbury, CT 06033 Phone: (860) 286-8900	ive, Suite 402		Project Name Location:	:		mmercial Foun Street, New B		_ _ _	Date:         12/26/12         Page 1 of 1           File No.         43369.82           GZA Staff/Sampler:         BAG		
Air Temperature (°F):	35°F			SAM	IPLING EQUIP	MENT			OVA/OVM: N/A Calibration Standard: 100 ppm Source lamp: 10.6 eV		
Weather Conditions:	Cloudy		Sample Me	thod/Device:				_	Instrument Reading (start): 93.6		
			Grab	Hand Auger		Core/Borer	Dredge	Other	Instrument Reading (finish): 99.7		
Sample ID	Time	Sample Depth (FT)	OVM Reading (PPM)	Odor	Ground Cover (asphlt/cnc.gras)	Cover Thickness (in)			Sample Description		
Ext-1	1045	0-1'	ND	None	Gravel	0-4"	0-4" Black GRAVEL and ORGANIC MATERIAL, some Sand and Silt, red-brown, fine to medium Sand and Silt, little Gravel 4-12"; Red-brown, fine to medium SAND and SILT, little Gravel, red-brown, fine to				
Ext-1	1055	1-2'	ND	None			medium Sand and SILT, little Gravel				
Ext-2	1100	0-1'	ND	None	Gravel	0-4"			some fine to medium Sand and Silt o medium SAND and SILT, little Gravel, red-brown, fine to		
Ext-2	1105	1-2'	ND	None			medium San				
Ext-3	1110	0-1'	ND	None	Gravel	0-4"			and ORGANIC MATERIAL, some Sand and Gravel to medium SAND and SILT, little Gravel, red-brown, fine to		
Ext-3	1115	1-2'	ND	None			medium San				
Ext-4	1118	0-1'	ND	None	Gravel	0-4"			Organic Material to medium SAND and SILT, little Gravel, red-brown, fine to		
Ext-4	1120	1-2'	ND	None					T, little Gravel		
Ext-5	1125	0-1'	ND	None	Gravel	0-4"			Organic Material nedium SAND, little Silt and Gravel, brown, medium Sand,		
Ext-5	1130	1-2'	ND	None			little Silt, litt		redium SAND, fittle Sitt and Gravet, brown, medium Sand,		
Catch Basin	1140		ND	None			Saturated bla	nck SEDIM	ENT and GRAVEL		
	*Samj	ples collected	from 0.5-0.75'	and 1.75-2.0'							
	SOIL CONDITI	ONS	_	DE	NSITY	_	ABBREVIATIO	NS	ORGANIC MATERIALS		
Med. Sand 1/64"-1/16 C. Sand 1/	Too fine to see. est visible particles. 5" (granular sugar). 6"-1/4" (rock salt). 8/4" (pea to grape).	LITTLE (L.) SOME (S.) AND	0-10% 10-20% 20-35% 35-50%	M. Dense	Silt/Clay V. Soft Soft M. Stiff Stiff	V - Very GR - Gray BN - Brown YEL - Yellow RD - Red	F - Fine M - Medium C - Coarse F/M - Fine to M F/C - Fine to Co		Organic Silt: Dark gray to black, light weight, often H2S odor.  Humus: Decomposed root/twig/leaf litter - forest areas.  Root Mat: Living root fiber structures, found in marshes.  Peat: Fossiliferous root mat - decomposed fiber structure.  Note: e.g. logs, branches, roots, shells, black streaks, H2S odor.		

			SI	HALLO	W SOIL S	SAMPLE	FIELD	LOG				
GZA GeoEnvironment 655 Winding Brook Dr Glastonbury, CT 0603 Phone: (860) 286-8900	rive, Suite 402		Project Name Location:		326 South	mmercial Foun Street, New B		- -	Date: 12/28/12			
Air Temperature (°F):	30s			SAN	MPLING EQUIP	MENT			OVA/OVM: N/A Calibration Standard: 100 ppm Source lamp: 10.6 eV			
Weather Conditions:	Sun		Sample Me	thod/Device:	GeoProbe Hand	l Sampler			Instrument Reading (start):			
Wedner Conditions.	Dun		_			Core/Borer	Duadaa	Other	Instrument Reading (finish):			
	1	Sample	Grab OVM	Hand Auger	Ground	Core/Borer	Dredge	Otner	instrument reading (finish).			
Sample ID	Time	Depth	Reading	Odor	Cover	Thickness			Sample Description			
Sumple 1D	Time	(FT)	(PPM)	Odor	(asphlt/cnc.gras)	(in)		Sumple Description				
		,		Machine oil	()	,	18" recovery	, Moist, red	d-brown SILT, some fine Sand, trace Gravel, no staining, see			
A3-S6 (0-2)	1330	0-2'	NM	top 3"	Concrete	6	odor					
	SOIL CONDITI		0.100/	1	ENSITY		ABBREVIATIO	ONS	ORGANIC MATERIALS			
Fines (silts & clay) Fine sand. Fine	Too fine to see est visible particles	. TRACE (TR.)	0-10% 10-20%	Sand V. Loose	Silt/Clay V. Soft	V - Very GR - Gray	F - Fine M - Medium		Organic Silt: Dark gray to black, light weight, often H2S odor.  Humus: Decomposed root/twig/leaf litter - forest areas.			
Med. Sand 1/64"-1/10	6" (granular sugar).	. SOME (S.)	20-35%	Loose	Soft	BN - Brown	C - Coarse		Root Mat: Living root fiber structures, found in marshes.			
	/6"-1/4" (rock salt). 3/4" (pea to grape).		35-50%	M. Dense Dense	M. Stiff Stiff	YEL - Yellow RD - Red	F/M - Fine to M F/C - Fine to Co		Peat: Fossiliferous root mat - decomposed fiber structure.  Note: e.g. logs, branches, roots, shells, black streaks, H2S odor.			

326 SOUTH STREET NEW BRITIAN, CT  EXCAVATION EQUIPMENT  MODEL: 35S cu. yd. REACH:  One fine to coarse Gravel	TEST PIT NO.:  FILE NO.:  DATE:  GROUND ELEV.: TIME STARTED: TIME COMPLETE  EXCAV. EFFORT  E  E		TP-1 43369.82 1/10/2013 0815 0915 REMARK NO.
NEW BRITIAN, CT  EXCAVATION EQUIPMENT  MODEL: 35S  cu. yd. REACH:	GROUND ELEV.: TIME STARTED: TIME COMPLETE  EXCAV. EFFORT  E	BOULDER COUNT QTY. CLASS	1/10/2013 0815 0915 REMARK
MODEL: 35S cu. yd. REACH:	GROUND ELEV.: TIME STARTED: TIME COMPLETE  EXCAV. EFFORT  E	BOULDER COUNT QTY. CLASS	0815 0915 REMARK
MODEL: 35S cu. yd. REACH:	TIME STARTED: TIME COMPLETE  EXCAV. EFFORT  E	BOULDER COUNT QTY. CLASS	0915 REMARK
cu. yd. REACH:	TIME STARTED: TIME COMPLETE  EXCAV. EFFORT  E	BOULDER COUNT QTY. CLASS	0915 REMARK
cu. yd. REACH:	EXCAV. EFFORT  E	BOULDER COUNT QTY. CLASS	0915 REMARK
	EXCAV. EFFORT E	BOULDER COUNT QTY. CLASS	
	EFFORT  E	QTY. CLASS	
ome fine to coarse Gravel	E	0	NO.
ome fine to coarse Gravel	E		
ome fine to coarse Gravel	E		
ome fine to coarse Gravel		0	
ome fine to coarse Gravel		0	
ome fine to coarse Gravel	F		
		0	
		0	
	_	0	
	E	0	
	E	0	
		0	
	F	0	
	_		
	E	0	
	E	0	
xploration			
	Exploration	E E	E 0  E 0

#### **GEOPROBE LOG** Commercial Foundry **EXPLORATION NO.:** A12-S-1 **GZA** 326 South Street SHEET: 1 of 1 GeoEnvironmental, Inc. PROJECT NO: 43369.82 New Britain, Connecticut Engineers and Scientists **REVIEWED BY:** Logged By: S. Pavlesich Geoprobe Location: See Plan H. Datum: Drilling Co.: Zebra Ground Surface Elev. (ft.): V. Datum: Foreman: Luke Final Geoprobe Depth (ft.): 8 Date Start - Finish: 12/26/2013 - 12/26/2013 Groundwater Depth (ft.) Type of Rig:GeoProbe Sampler Type:MC

Date Time **Water Depth** Stab. Time Rig Model: 6620DT Sampler O.D. (in.):2.0 **Drilling Method:**Direct Push Sampler Length (in.)48 **Rock Core Size:** 

		San	ple				논	>- <del>=</del> -	Equipment Installed
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID* (ppm)	Sample Description Modified Burmister	Remark	Stratum O Description	
-	S-1	0-4	48	36	ND	Top 18": Dark brown-red, fine to medium SAND, little Silt, trace fine to coarse Gravel Bottom 18": Dark brown-red, fine SAND and SILT, no odor or stain	1 2	SAND	No Equipment Installed
5 _ 5 _	S-2	4-8	48	48	ND	Dark brown-red, fine SAND and SILT, no odor or stain	2	SAND AND SILT	
10_						End of exploration at 8 feet.		0	
15 _ -									
20 _									
25 _ -									
30									

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "\*\* indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.
2 - Samples collected for laboratory analysis from 2.5-2.75, 4.75-5.0 and 5.75 and 6.0 feet below grade.

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 5/3/2013; 9:34:47 AM REMARKS



Commercial Foundry 326 South Street New Britain, Connecticut

12/26/2013 - 12/26/2013

EXPLORATION NO.: A12-S-2 SHEET: 1 of 1

PROJECT NO: 43369.82 REVIEWED BY:

Logged By: S. Pavlesich Drilling Co.: Zebra Foreman: Luke

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 5/3/2013; 9:34:47 AM

REMARKS

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 8 H. Datum: V. Datum:

Date

Type of Rig:GeoProbe Rig Model: 6620DT Drilling Method:Direct Push Sampler Type:MC Sampler O.D. (in.):2.0 Sampler Length (in.):48 Rock Core Size:

Date Start - Finish:

Groundwater Depth (ft.)

Time Water Depth Stab. Time

		Sam	nla					·	Equipment Installed
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID* (ppm)	Sample Description Modified Burmister	Remark	Description	Equipment installed
-	S-1	0-4	48	30	ND	Top 26": Dark brown-red, fine to medium SAND, little Silt Bottom 4": Dark brown-red, fine SAND and SILT, no odor or stain	1 2	SAND 4	No Equipment Installed
5_	S-2	4-8	48	48	ND	Top 36": Dark brown-red, fine SAND and SILT Botom 12": Dark brown-red, fine to medium SAND, little Silt, wet, no stain, slight odor 6 to 8 feet	2	SAND AND SILT	
10 _						End of exploration at 8 feet.			
15 _									
20 _									
25 _	-								
	-								

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "\*" indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.
2 - Samples collected for laboratory analysis from 2.5-2.75, 4.75-5.0 and 5.75 and 6.0 feet below grade.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

A12-S-2

#### **GEOPROBE LOG Commercial Foundry EXPLORATION NO.:** A12-S-3 **GZA** 326 South Street SHEET: 1 of 1 GeoEnvironmental, Inc. PROJECT NO: 43369.82 New Britain, Connecticut Engineers and Scientists **REVIEWED BY:** Logged By: S. Pavlesich Geoprobe Location: See Plan H. Datum: Drilling Co.: Zebra Ground Surface Elev. (ft.): V. Datum: Foreman: Luke Final Geoprobe Depth (ft.): 8 Date Start - Finish: 12/26/2013 - 12/26/2013 Groundwater Denth (ft )

Type of Rig:GeoProbe	Sampler Type:MC	Groundwater Depth (ft.)								
Rig Model: 6620DT	Sampler O.D. (in.):2.0	Date	Time	Water Depth	Stab. Time					
Drilling Method:Direct Push	Sampler Length (in.)48 Rock Core Size:									
Sample Depth	0 1 5 1 11	ž	ev.	타. Equipr	ment Installed					
	Sample Description	1 10	Ψ <del>L</del>	***						

Depth	Sample Depth Pen.Rec. PID					Sample Description	Stratum Deg (#)	Equipment Installed		
(ft)	No.	Depth (ft.)	(in)	(in)	PID* (ppm)	Modified Burmister	Remark	□ Stratum ☐ □ Description		
	S-1	0-4	48	21	ND	Dark brown-red, fine SAND, some Silt, trace fine	1	12.2.2	No Equipment Installed	
						to coarse Gravel, no odor or stain				
-								SAND		
							2			
			10	40	ND				4	
5_	S-2	4-8	48	48		Top 36": Dark brown-red, fine SAND and SILT,	0			
						no stain, slight odor at 6 feet Bottom 12": Dark brown-red CLAY, no odor or	2			
						stain	2	SAND AND SILT		
-										
						End of exploration at 8 feet.			<u> </u>	
						End of exploration at a loot.				
10 _										
-										
15 _										
20 _										
8 AN										
34:4										
.6 .6 .6										
25 _										
. 5/5	-		1							
gO.			1							
M/E			1							
OBE			1							
30	1		1							
GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 5/3/2013; 9:34:48 AM   GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 5/3/2013; 9:34:48 AM   GZADEPTH.GDT; GZATEMARKS		I .	1		1			I	1	
S	1 - Soil s	amples screene	ed with a	10.6 e\	/ MiniRAE photo	pionization detector (PID). PID values represent meter response in parts per	million (	ppm) relative to benzene in a	ir and above background readings.	
GZA TEMPLAT	A "" indi 2 - Samp	cates a sample oles collected fo	sent to a r laborat	a labora ory ana	tory for additional lysis from 2.5-2.	al analyses or screening. ND=None Detected above background. 75, 4.75-5.0 and 5.75 and 6.0 feet below grade.				
N TE										
RE GZ										
GDT										
<u></u> Strat	ificatio	n lines rep	resen	t app	roximate bo	oundaries between soil types. Actual transitions may	be gr	adual. Water level		
च्च read othe	r facto	ave been n rs than tho	nade a se pre	at the esent	at the time	oundaries between soil types. Actual transitions may under the conditions stated. Fluctuations of groundw s the measurements were made.	vater i	nay occur due to	A12-S-3	
GZ										

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Commercial Foundry 326 South Street New Britain, Connecticut

12/26/2013 - 12/26/2013

**EXPLORATION NO.:** A12-S-4 SHEET: 1 of 1 PROJECT NO: 43369.82

**REVIEWED BY:** 

Logged By: S. Pavlesich Drilling Co.: Zebra Foreman: Luke

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 8

H. Datum: V. Datum:

Date

Type of Rig:GeoProbe Rig Model: 6620DT **Drilling Method:**Direct Push

Sampler Type:MC Sampler O.D. (in.):2.0 Sampler Length (in.)48 **Rock Core Size:** 

Date Start - Finish:

Groundwater Depth (ft.) Time **Water Depth** Stab. Time

		San	ple				논	; <u> </u>	Equipment Installed
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID* (ppm)	Sample Description Modified Burmister	Remark	Stratum Description	
- - - 5 _ -	S-1	0-4	48	26	ND ND	Top 22": Dark brown-red, fine to medium SAND, little Silt, trace fine to coarse Gravel, no odor or stain Bottom 4": Dark brown-red, fine SAND, some Silt, no odor or stain Dark brown-red, fine SAND, some Silt, wet, no stain or odor	2 2 2	SAND	No Equipment Installed
10_						End of exploration at 8 feet.		8	
- 15 _ -									
20 _									
25 _ -									
30									

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "\*\* indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.
2 - Samples collected for laboratory analysis from 2.5-2.75, 4.75-5.0 and 5.75 and 6.0 feet below grade.

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 5/3/2013; 9:34:49 AM REMARKS

#### **GEOPROBE LOG** Commercial Foundry **EXPLORATION NO.:** A12-S-5 **GZA** 326 South Street SHEET: 1 of 1 GeoEnvironmental, Inc. PROJECT NO: 43369.82 New Britain, Connecticut Engineers and Scientists **REVIEWED BY:** Logged By: S. Pavlesich Geoprobe Location: See Plan H. Datum: Drilling Co.: Zebra Ground Surface Elev. (ft.): V. Datum: Foreman: Luke Final Geoprobe Depth (ft.): 8 Date Start - Finish: 12/26/2013 - 12/26/2013 Groundwater Depth (ft.) Type of Rig:GeoProbe Sampler Type:MC Date Time **Water Depth** Stab. Time Rig Model: 6620DT Sampler O.D. (in.):2.0 **Drilling Method:**Direct Push Sampler Length (in.)48 Rock Core Size:

Depth (ft)	No.	Sam Depth (ft.)	Pen. (in)	Rec.	PID* (ppm)	Sample Description Modified Burmister	Remark	Stratum Descriptio	Depth (ff.)	Equipm	ent Installed	d ¯
5	S-1 S-2	0-4	48	30	ND ND	Top 15": Dark brown-red, fine to medium SAN some Silt, trace fine to coarse Gravel Bottom 13": Dark brown-red, fine SAND and SILT, no odor or stain  Dark brown-red, fine SAND, some Silt, wet, no	2	SAND AND	2	No Equip	oment Insta	lled
-	-					odor or stain	2	SAND	6 8			
10 _						End of exploration at 8 feet.						
15 _	-											
20 _	-											
25 _ -	-											
-												

REMARKS

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 5/3/2013; 9:34:49 AM

<sup>1 -</sup> Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "\*\* indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.
2 - Samples collected for laboratory analysis from 2.5-2.75, 4.75-5.0 and 5.75 and 6.0 feet below grade.

#### **GEOPROBE LOG Commercial Foundry EXPLORATION NO.:** A12-S-6 **GZA** 326 South Street SHEET: 1 of 1 GeoEnvironmental, Inc. PROJECT NO: 43369.82 New Britain, Connecticut Engineers and Scientists **REVIEWED BY:** Logged By: S. Pavlesich Geoprobe Location: See Plan H. Datum: Drilling Co.: Zebra Ground Surface Elev. (ft.): V. Datum: Foreman: Luke Final Geoprobe Depth (ft.): 8 Date Start - Finish: 12/26/2013 - 12/26/2013

Turns of Dissonance Dush s	0		Ground	water Depth (ft.)	
Type of Rig:GeoProbe Rig Model: 6620DT	Sampler Type:MC Sampler O.D. (in.):2.0	Date	Time	Water Depth	Stab. Time
Drilling Method:Direct Push	Sampler Length (in.)48				
	Rock Core Size:				

-	1	San	nnla					×		_	Equipment Installed
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID* (ppm)	Sample Description Modified Burmister		Remark	Stratum Descriptio	Deptl (ft.)	
- - - 5_	S-1 S-2	0-4	48	48	ND ND	Top 20": Dark brown-red, fine to coarse SAN little Silt, trace fine to coarse Gravel, no odor stain  Bottom 6": Dark brown-red, fine SAND and Sono odor or stain  Top 24": Dark brown-red, fine SAND and SIltight, no odor or stain  Bottom 24": Dark brown-red CLAY, no odor	r or SILT, LT,	2 2 2	SAND	2	No Equipment Installed
-						stain		_	CLAY	8	
10 _						End of exploration at 8 feet.					
-											
15 _											
-											
20 _											
-											
25 _											
-											

<sup>1 -</sup> Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "\*" indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.
2 - Samples collected for laboratory analysis from 2.5-2.75, 4.75-5.0 and 5.75 and 6.0 feet below grade.

REMARKS

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 5/3/2013; 9:34:50 AM

#### **GEOPROBE LOG Commercial Foundry EXPLORATION NO.:** A14-S-18 **GZA** 326 South Street SHEET: 1 of 1 GeoEnvironmental, Inc. PROJECT NO: 43369.82 New Britain, Connecticut Engineers and Scientists **REVIEWED BY:** Logged By: S. Pavlesich Geoprobe Location: See Plan H. Datum: Drilling Co.: Zebra Ground Surface Elev. (ft.): V. Datum: Foreman: Luke Final Geoprobe Depth (ft.): 8 Date Start - Finish: 12/26/2013 - 12/26/2013

Type of Rig:GeoProbe	Sampler Type:MC		Groundy	vater Depth (ft.)	
Rig Model: 6620DT	Sampler O.D. (in.):2.0	Date	Time	Water Depth	Stab. Time
Drilling Method:Direct Push	Sampler Length (in.)48				
	Rock Core Size:			1	

		San	ple				돈	>- <del>=</del> -	Equipment Installed
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID* (ppm)	Sample Description Modified Burmister	Remark	Stratum O Description	
-	S-1	0-4	48	12	ND	Dark-brown to red, fine to medium SAND, little Silt, trace fine to coarse Gravel. No odor or stain.	1	SAND	No Equipment Installed
5_	S-2	4-8	48	36	ND	Top 27": Dark-brown to red, fine SAND and SILT Bottom 9": Dark-brown to red CLAY. No odor or stain	2	SAND AND SILT 6	
-						End of exploration at 8 feet.		8	
10 _						·			
- - 15									
-									
20 _									
- - 25									
-									
30									

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "\*" indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.
2 - Samples collected for laboratory analysis from 4.0 to 4.25' below grade.

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 5/3/2013; 9:34:50 AM

REMARKS

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

A14-S-18

#### **GEOPROBE LOG** Commercial Foundry **EXPLORATION NO.:** A14-S-19 **GZA** 326 South Street SHEET: 1 of 1 GeoEnvironmental, Inc. PROJECT NO: 43369.82 New Britain, Connecticut Engineers and Scientists **REVIEWED BY:** Logged By: S. Pavlesich Geoprobe Location: See Plan H. Datum: Drilling Co.: Zebra Ground Surface Elev. (ft.): V. Datum: Foreman: Luke Final Geoprobe Depth (ft.): 8 Date Start - Finish: 12/26/2013 - 12/26/2013 Groundwater Depth (ft.) Type of Rig:GeoProbe Sampler Type:MC Date Time **Water Depth** Stab. Time Rig Model: 6620DT Sampler O.D. (in.):2.0 **Drilling Method:**Direct Push Sampler Length (in.)48 **Rock Core Size:** Equipment Installed Sample ark Eev. Denth Sample Description

Deptr (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID* (ppm)	Sample Description Modified Burmister	Rema	Description Description	
-	S-1	0-4	48	6	ND	Dark-brown to red, fine to coarse SAND, little Silt, little fine to coarse Gravel. No odor or stain.	1		No Equipment Installed
-								SAND	
5 _	S-2	4-8	48	48	ND	Dark-brown to red, fine SAND and SILT, trace fine to coarse Gravel. No odor or stain.	2	4	
-								SAND AND SILT	
-						End of exploration at 8 feet.		8	
10 _									
-									
- 15 _									
-									
-									
20 _									
-									
-									
25 _									
25 _ - - - - - 30									
30									

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 5/3/2013; 9:34:51 AM pag REMARKS E

<sup>1 -</sup> Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "\*\* indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.
2 - Samples collected for laboratory analysis from 4.0-4.25' below grade.

#### **GEOPROBE LOG** Commercial Foundry **EXPLORATION NO.:** A14-S-20 **GZA** 326 South Street SHEET: 1 of 1 GeoEnvironmental, Inc. PROJECT NO: 43369.82 New Britain, Connecticut Engineers and Scientists **REVIEWED BY:** Logged By: S. Pavlesich Geoprobe Location: See Plan H. Datum: Drilling Co.: Zebra Ground Surface Elev. (ft.): V. Datum: Foreman: Luke Final Geoprobe Depth (ft.): 8 Date Start - Finish: 12/26/2013 - 12/26/2013 Groundwater Depth (ft.) Type of Rig:GeoProbe Sampler Type:MC Date Time **Water Depth** Stab. Time Rig Model: 6620DT Sampler O.D. (in.):2.0 **Drilling Method:**Direct Push Sampler Length (in.)48 **Rock Core Size:** Sample

Danth		Sam	iple				Ĭ.	>	Equipment Installed
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID* (ppm)	Sample Description Modified Burmister	Remark	Stratum Description	
-	S-1	0-4	48	18	ND	Core Dark-brown to red, fine to coarse SAND, little Silt, trace fine to coarse Gravel. No odor or stain.	1	SAND	No Equipment Installed
5_	S-2	4-8	48	36	ND	Dark-brown to red, fine SAND and SILT. No odor or stain. Wet.	2	4	
-								SAND AND SILT	
10 _						End of exploration at 8 feet.			
-									
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15 <u> </u>									
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GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 5/3/2013; 9:34:51 AM pag REMARKS E

<sup>1 -</sup> Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "\*\* indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.
2 - Samples collected for laboratory analysis from 4.0-4.25' below grade.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

**COMMERCIAL FOUNDRY** 326 South Street New Britain, CT

**EXPLORATION NO.:** A14-S-22 SHEET: 1 of 1

PROJECT NO: 05.0043369.83

**REVIEWED BY:** 

Logged By: B. Graham Drilling Co.: Zebra Drilling Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4 Date Start - Finish: 7/2/2013 - 7/2/2013 H. Datum: V. Datum:

Type of Rig:GeoProbe Rig Model: 8 M

**Drilling Method:**Direct Push

Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 **Rock Core Size:** 

Groundwater Depth (ft.) Date Time **Water Depth** Stab. Time

		San	nnle				\ \ \ \		1	_
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
-	S-1 S-2	0-2 2-4	24	16	ND ND	S-1: 0-10": Brown, medium SAND, trace Silt 10-16": Brown, fine SAND, some Silt, trace fine to coarse Gravel S-2: Brown, fine SAND, some Silt, little fine to coarse Gravel	1 2		FILL	
5_						End of exploration at 4 feet.				4
10_										
15 _										
20										
25										
30			1	$\Box$						

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

2 - Collected samples from potential laboratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

GZA TEMPLATE GEOPROBE; 8/8/2013; 9:51:50 AM REMARKS

GZA
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Engineers and Scientists

COMMERCIAL FOUNDRY 326 South Street New Britain, CT EXPLORATION NO.: A-14-S-22 SHEET: 1 of 1

PROJECT NO: 05.0043369.83

**REVIEWED BY:** 

Logged By: B. Graham
Drilling Co.: Zebra Drilling
Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4 Date Start - Finish: 7/2/2013 - 7/2/2013 H. Datum: V. Datum:

Type of Rig: Rig Model: Drilling Method: Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 Rock Core Size: Groundwater Depth (ft.)

Date Time Water Depth Stab. Time

Donth		San	nple						돛	· .		₽ ~
Depth (ft)	1	Depth	Pen.	Rec. (in)	PID	Sample Description Modified Burmister			Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
(11)	INO.	(ft.)	(in)	(in)	(ppm)				Re	ш	Description	۵ ′
	S-1	0-2	24	16	ND	S-1: 0-10": Brown, medium SAND, trace Silt			1			
-	-				IND	10-16": Brown, fine SAND, some Silt, trace fine	e to coarse	,			FILL	
					N.D	Gravel	c to course	<b>'</b>	2		I ILL	2
-	S-2	2-4	24	24	ND		_					
	0-2	2-4	- '	l - ·		S-2: Brown, fine SAND, some Silt, little fine to c	coarse Gra	vel				
-						End of exploration at 4 feet.						
5_						Lift of exploration at 4 leet.						
_	1											
-	-											
-	1											
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1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "\*" indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.

2 - Collected samples from potential laboratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

GZA TEMPLATE GEOPROBE; 7/9/2013; 1:10:02 PM <u>空</u>るな **REMARKS** <mark>S</mark>

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

**COMMERCIAL FOUNDRY** 326 South Street New Britain, CT

**EXPLORATION NO.:** A14-S-23 SHEET: 1 of 1

PROJECT NO: 05.0043369.83

**REVIEWED BY:** 

Logged By: B. Graham Drilling Co.: Zebra Drilling Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4 Date Start - Finish: 7/2/2013 - 7/2/2013 H. Datum: V. Datum:

Type of Rig:GeoProbe

Rig Model: 8 M **Drilling Method:**Direct Push Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 **Rock Core Size:** 

Groundwater Depth (ft.) Date Time **Water Depth** Stab. Time

Depth			nple			Cample Description	~   교		£
(ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark Elev.	Stratum  Description	Depth
	S-1	0-2	24	24	ND	S-1: 0-8": Medium SAND, trace Silt	1	2000p	
4					ND	8-24": Fine brown SAND, some Silt, trace fine to coarse	2		
					ND	Gravel, Asphalt (14-15")	2	<b>-</b> 111	
	S-2	2-4	24	24	110	S-2: Fine to coarse, brown SAND, some Silt, trace fine to		FILL	
1						coarse Gravel			
+						End of exploration at 4 feet.			
5_						End of oxploration at 1100t.			
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REMARKS	1 - So	II samples	scree	ned v	vith a 10.6	eV MiniRAE photoionization detector (PID). PID values represent love background readings. ND=None Detected above background	meter res <sub>l</sub>	oonse in parts per mil	llion
AR	2 - Co	llected sar	nples	from	potential la	boratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2	2', 2.75-3',	3.75-4' below grade.	
⋝			-					-	
щТ									
8									
	ificatio	n lines rep	resen	t app	roximate bo	oundaries between soil types. Actual transitions may be gradual. Wunder the conditions stated. Fluctuations of groundwater may occus the measurements were made.	/ater level	A14-S-23	

<sup>1 -</sup> Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

2 - Collected samples from potential laboratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

GZA
GeoEnvironmental, Inc.
Engineers and Scientists

COMMERCIAL FOUNDRY 326 South Street New Britain, CT

7/2/2013 - 7/2/2013

EXPLORATION NO.: A-14-S-23 SHEET: 1 of 1

PROJECT NO: 05.0043369.83 REVIEWED BY:

Logged By: B. Graham
Drilling Co.: Zebra Drilling
Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4 H. Datum: V. Datum:

Type of Rig: Rig Model: Drilling Method: Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 Rock Core Size:

Date Start - Finish:

Groundwater Depth (ft.)

Date Time Water Depth Stab. Time

		San	nnle				누	Γ.		
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev.	Stratum Description	Depth (ft.)
-	S-1 S-2	0-2 2-4	24	24	ND ND	S-1: 0-8": Medium SAND, trace Silt 8-24": Fine brown SAND, some Silt, trace fine to coarse Gravel, Asphalt (14-15") S-2: Fine to coarse, brown SAND, some Silt, trace fine to	1 2		FILL	2
-						coarse Gravel				2
5_						End of exploration at 4 feet.				
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REMARKS

GZA TEMPLATE GEOPROBE; 7/9/2013; 1:10:02 PM

<sup>1 -</sup> Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "\*" indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.

<sup>2 -</sup> Collected samples from potential laboratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

**COMMERCIAL FOUNDRY** 326 South Street New Britain, CT

7/2/2013 - 7/2/2013

**EXPLORATION NO.:** A14-S-24 SHEET: 1 of 1

PROJECT NO: 05.0043369.83 **REVIEWED BY:** 

Logged By: B. Graham Drilling Co.: Zebra Drilling Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4

H. Datum: V. Datum:

Date

Type of Rig:GeoProbe Rig Model: 8 M

**Drilling Method:**Direct Push

Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 **Rock Core Size:** 

Date Start - Finish:

Groundwater Depth (ft.) Time **Water Depth** Stab. Time

Donth		San	ple			0 15			яĸ			- t
Depth (ft)		Depth	Pen.	Rec. (in)	PID	Sample Description Modified Burmister			Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
( -/	INO.	(ft.)	(in)	(in)	(ppm)				Ř		Description	
	S-1	0-2	24	18	ND	S-1: 0-10": Brown, medium SAND, trace Sil			1			
-	1					10-18": Brown, fine SAND, some Silt, little f	ine to coarse		2			ļ
-		2.4	24	24	ND	Gravel					FILL	
_	S-2	2-4	24	24		S-2: Brown, fine SAND, some Silt, trace fine	to coarse Gr	ravel				
												1
-						End of exploration at 4 feet.						
5 _						End of exploration at 4 leet.						ļ
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1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

2 - Collected samples from potential laboratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

GZA TEMPLATE GEOPROBE; 8/8/2013; 9:51:51 AM

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

**COMMERCIAL FOUNDRY** 326 South Street New Britain, CT

**EXPLORATION NO.: A-14-S-24** SHEET: 1 of 1

PROJECT NO: 05.0043369.83

**REVIEWED BY:** 

Logged By: B. Graham Drilling Co.: Zebra Drilling Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4 Date Start - Finish: 7/2/2013 - 7/2/2013 H. Datum: V. Datum:

Type of Rig: Rig Model: **Drilling Method:**  Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 **Rock Core Size:** 

Groundwater Depth (ft.) Date Time Water Depth Stab. Time

		Son	nnlo						
Depth (ft)	No.	San Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Stratum  Description	Depth
-	S-1 S-2	0-2	24	18	ND ND	S-1: 0-10": Brown, medium SAND, trace Silt 10-18": Brown, fine SAND, some Silt, little fine to coarse Gravel S-2: Brown, fine SAND, some Silt, trace fine to coarse Gravel	1 2	FILL	
5						End of exploration at 4 feet.			
ARK	(ppm) scree	relative to ning. ND=	benzo None	ene ir Dete	n air and ab cted above	eV MiniRAE photoionization detector (PID). PID values represent bove background readings. A "*" indicates a sample sent to a labo background. boratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-	ratory fo	or additional analyses or	n
Strati readi other	ification ngs ha factor	n lines rep ave been n rs than tho	resen nade a se pre	t applet the sent	roximate bo times and at the times	oundaries between soil types. Actual transitions may be gradual. Vunder the conditions stated. Fluctuations of groundwater may occ s the measurements were made.	Vater lev ur due to	A-14-S-24	

<sup>1 -</sup> Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "\*" indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.

<sup>2 -</sup> Collected samples from potential laboratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

**COMMERCIAL FOUNDRY** 326 South Street New Britain, CT

7/2/2013 - 7/2/2013

**EXPLORATION NO.:** A14-S-25 SHEET: 1 of 1

PROJECT NO: 05.0043369.83

**REVIEWED BY:** 

Logged By: B. Graham Drilling Co.: Zebra Drilling Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4

H. Datum: V. Datum:

Type of Rig:GeoProbe Rig Model: 8 M

**Drilling Method:**Direct Push

Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 **Rock Core Size:** 

Date Start - Finish:

Groundwater Depth (ft.) Date Time **Water Depth** Stab. Time

								L .				
Denth		San	ipie			Sample Description			ark	> ~	<b>.</b>	£ (-)
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister			Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-2	24	18	ND	S-1: 0-10": Brown, medium SAND, trace Si	lt	+	1		· · · · · · · · · · · · · · ·	
-		0 2	- :	.	ND	10-18": Brown, fine SAND, some Silt, trace		_				
					ND	Gravel	inic to coars	~	2			
_	S-2	2-4	24	24	טאו	S-2: Brown, fine SAND, some Silt, trace fine	to coarco G	ravol			FILL	
-						3-2. Blown, line SAND, some Siit, trace line	to coarse Gr	lavei				
_												4
5						End of exploration at 4 feet.						
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GZA TEMPLATE GEOPROBE; 8/8/2013; 9:51:51 AM

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

2 - Collected samples from potential laboratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

GZA
GeoEnvironmental, Inc.
Engineers and Scientists

COMMERCIAL FOUNDRY 326 South Street New Britain, CT

7/2/2013 - 7/2/2013

EXPLORATION NO.: A-14-S-25 SHEET: 1 of 1 PROJECT NO: 05.0043369.83

REVIEWED BY:

Logged By: B. Graham Drilling Co.: Zebra Drilling Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4 H. Datum: V. Datum:

Type of Rig: Rig Model: Drilling Method: Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 Rock Core Size:

Date Start - Finish:

Groundwater Depth (ft.)

Date Time Water Depth Stab. Time

- ·		San	nple				논			h
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S-1	0-2	24	18	ND	S-1: 0-10": Brown, medium SAND, trace Silt	1			
-						10-18": Brown, fine SAND, some Silt, trace fine to coarse	2		FILL	2
-	S-2	2-4	24	24	ND	Gravel				2
-	-					S-2: Brown, fine SAND, some Silt, trace fine to coarse Gravel				
_						End of exploration at 4 feet.				4
5 _						End of exploration at 4 feet.				
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1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "\*" indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.

2 - Collected samples from potential laboratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

stification lines represent approximate boundaries between seil types. Actual transitions may be gradual. Water level

REMARKS

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

**COMMERCIAL FOUNDRY** 326 South Street New Britain, CT

**EXPLORATION NO.:** A14-S-26 SHEET: 1 of 1

PROJECT NO: 05.0043369.83

**REVIEWED BY:** 

Logged By: B. Graham Drilling Co.: Zebra Drilling Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4 Date Start - Finish: 7/2/2013 - 7/2/2013 H. Datum: V. Datum:

Type of Rig:GeoProbe Rig Model: 8 M **Drilling Method:**Direct Push Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 **Rock Core Size:** 

Groundwater Depth (ft.) Date Time **Water Depth** Stab. Time

Depth (ft)		San Depth	nple Pen.	Rec.	PID	Sample Description	Remark Elev.	⊋ Stratum	Depth
(11)	No.	(ft.)	(in)	(in)	(ppm)	Modified Burmister		Description	_
- - -	S-1 S-2	0-2 2-4	24	20	ND ND	S-1: 0-10": Brown, medium SAND, little Silt 10-20": Brown, fine SAND and SILT, trace fine to coarse Gravel S-2: Brown, fine SAND and SILT, trace fine to coarse Gravel	2	FILL	
5						End of exploration at 4 feet.			
× ∣	(ppm)	relative to	benze	ene ir	n air and ab	eV MiniRAE photoionization detector (PID). PID values represent bove background readings. ND=None Detected above background boratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-1.0',	d.		lion
Strati readi other	ification ngs ha facto	on lines rep ave been n rs than tho	resen nade a se pre	t app at the sent	roximate bo times and at the time	oundaries between soil types. Actual transitions may be gradual. V under the conditions stated. Fluctuations of groundwater may occi s the measurements were made.	Vater leve ur due to	A14-S-26	

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

**COMMERCIAL FOUNDRY** 326 South Street New Britain, CT

7/2/2013 - 7/2/2013

**EXPLORATION NO.:** A14-S-27 SHEET: 1 of 1

PROJECT NO: 05.0043369.83 **REVIEWED BY:** 

Logged By: B. Graham Drilling Co.: Zebra Drilling Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4

H. Datum: V. Datum:

Type of Rig:GeoProbe Rig Model: 8 M

**Drilling Method:**Direct Push

Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 **Rock Core Size:** 

Date Start - Finish:

Groundwater Depth (ft.) Date Time **Water Depth** Stab. Time

Depth			nple	l-		Sample Description	~ ^ ~ .	· • • • • • • • • • • • • • • • • • • •
(ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Modified Burmister	Remark Elev.	Stratum Stratum
	S-1	0-2	24	22		S-1: 0-8": Medium brown SAND, trace Silt	1	2000110011
-	.	• -	1	-	ND	8-22": Brown, fine SAND, some Silt, little fine to coarse Gravel		
					ND	o EE . Brown, mile of the come ont, intil the to obtain or dayon	2	
	S-2	2-4	24	24	IND	S-2: Brown, fine SAND and SILT, trace fine to coarse Gravel		FILL
-								
-						Find of available at A find		
5 _						End of exploration at 4 feet.		
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			1					
20	1		1					
30	<u> </u>		1					
	1 0-	il camples	coroo	nod.	with a 10 G	eV MiniRAE photoionization detector (PID). PID values represent	motor rea	nonco in narto nor million
ξŞ.	(ppm)	relative to	benz	ene ir	mili a 10.6 1 air and ah	ev MiniRAE photoionization detector (PID). PID values represent pove background readings. ND=None Detected above background	meterres d.	pponse in parts per million
₽ F	2 - Co	llected sar	nples	from	potential la	aboratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-	2', 2.75-3'	, 3.75-4' below grade.
REMARKS								-
∞								
								<u>-</u>
Strat	ificatio	n lines rep	resen	t app	roximate be	oundaries between soil types. Actual transitions may be gradual. V	Vater leve	I
othe	facto	rs than tho	se pre	esent	at the time	oundaries between soil types. Actual transitions may be gradual. V under the conditions stated. Fluctuations of groundwater may occ s the measurements were made.	ui uue lo	A14-S-27
								-1

<sup>1 -</sup> Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

2 - Collected samples from potential laboratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

**COMMERCIAL FOUNDRY** 326 South Street New Britain, CT

7/2/2013 - 7/2/2013

**EXPLORATION NO.: Ext-6** SHEET: 1 of 1 PROJECT NO: 05.0043369.83

**REVIEWED BY:** 

Logged By: B. Graham Drilling Co.: Zebra Drilling Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4

H. Datum: V. Datum:

Type of Rig:GeoProbe Rig Model: 8 M

**Drilling Method:**Direct Push

Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 Rock Core Size:

Date Start - Finish:

Groundwater Depth (ft.) Date Time **Water Depth** Stab. Time

	1	San	anla						Ţ	1		
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister			Remark	Elev. (ft.)	Stratum escription	Depth (ft.)
-	S-1 S-2	0-2	24	18	ND ND	S-1: 0-2": Organic TOPSOIL 2-16": Red-brown, fine to medium SAND, s Gravel 16-18": Red-brown, fine SAND, some Silt, s S-2: Red-brown, fine SAND, some Silt, som	some Gravel	ne	1 2		SAND	4
5_						Gravel End of exploration at 4 feet.						
10_												
15 _												
20												
25												

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

2 - Collected samples from potential laboratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

GZA TEMPLATE GEOPROBE; 8/8/2013; 9:51:54 AM

GZA
GeoEnvironmental, Inc.
Engineers and Scientists

COMMERCIAL FOUNDRY 326 South Street New Britain, CT EXPLORATION NO.: Ext-7 SHEET: 1 of 1 PROJECT NO: 05.0043369.83

REVIEWED BY:

Logged By: B. Graham Drilling Co.: Zebra Drilling Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4 Date Start - Finish: 7/2/2013 - 7/2/2013 H. Datum: V. Datum:

Type of Rig:GeoProbe Rig Model: 8 M

Drilling Method:Direct Push

Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 Rock Core Size: Groundwater Depth (ft.)

Date Time Water Depth Stab. Time

		San	nnle				<u> </u>		-	
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
- -	S-1 S-2	0-2 2-4	24	18	ND ND	S-1: 0-2": TOPSOIL/Organic 2-18": Red-brown, fine to medium SAND, some Silt, some fine to coarse Gravel S-2: Red-brown, fine SAND, some Silt, some fine to coarse Gravel	1 2		SAND	4
5 _ - -						End of exploration at 4 feet.				
- 10 _ -										
- 15 _ -										
20 _ - -										
25 _ -										
30										

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.
2 - Collected samples from potential laboratory analysis from 0-0.25, 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Ext-7

GZA TEMPLATE GEOPROBE; 8/8/2013; 9:51:55 AM

REMARKS

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

**COMMERCIAL FOUNDRY** 326 South Street New Britain, CT

**EXPLORATION NO.: Ext-8** SHEET: 1 of 1 PROJECT NO: 05.0043369.83

**REVIEWED BY:** 

Logged By: B. Graham Drilling Co.: Zebra Drilling Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4 Date Start - Finish: 7/2/2013 - 7/2/2013 H. Datum: V. Datum:

Type of Rig:GeoProbe Rig Model: 8 M **Drilling Method:**Direct Push Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 **Rock Core Size:** 

Groundwater Depth (ft.) Date Time **Water Depth** Stab. Time

Depth			nple			Commis Description	투 .		₽,
(ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark Elev.	Stratum Description	Depth
	S-1	0-2	24	22	ND	S-1: 0-6": GRAVEL base, trace Topsoil	1		
+					ND	6"-22": Red-brown, fine SAND, some Silt, little fine to coarse	2		
4				_	ND	Gravel	-	SAND	
	S-2	2-4	24	24		S-2: Red-brown, fine SAND, some Silt, little fine to coarse		OAND	
						Gravel			
5						End of exploration at 4 feet.			
٦٦									
+									
4									
4									
10									
1									
+									
+									
4									
15 _									
1									
1									
20 _									
4									
4									
25									
-									
+									
-									
4									
30									
XS	1 - So (nnm)	il samples relative to	scree	ned v ene ir	vith a 10.6 h air and ah	eV MiniRAE photoionization detector (PID). PID values represent love background readings. ND=None Detected above background	t meter res	sponse in parts per mill	lion
REMARKS	2 - Co	llected sar	nples	from	potential la	boratory analysis from 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4	u. ' below gr	ade.	
12									
Strot	ificatio	n linea rea	rocon	tann	rovimata ha	oundarios hotwoon soil typos. Actual transitions may be aredual M	Matar lava	1	
Strati	ificatio	n lines rep	resen	t app	roximate bo	oundaries between soil types. Actual transitions may be gradual. V under the conditions stated. Fluctuations of groundwater may occ s the measurements were made.	Vater leve ur due to	Ext-8	

<sup>1 -</sup> Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

2 - Collected samples from potential laboratory analysis from 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

**COMMERCIAL FOUNDRY** 326 South Street New Britain, CT

**EXPLORATION NO.: Ext-9** SHEET: 1 of 1 PROJECT NO: 05.0043369.83

**REVIEWED BY:** 

Logged By: B. Graham Drilling Co.: Zebra Drilling Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4 Date Start - Finish: 7/2/2013 - 7/2/2013 H. Datum: V. Datum:

Type of Rig:GeoProbe Rig Model: 8 M

**Drilling Method:**Direct Push

Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 **Rock Core Size:** 

Groundwater Depth (ft.) Date Time **Water Depth** Stab. Time

		San	nnle				\ \ \ \		1	
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
-	S-1 S-2	0-2	24	12	ND ND	S-1: 0-5": GRAVEL base, trace Topsoil 5-24": Red-brown, fine SAND, some Silt, some fine to coarse Gravel S-2: Red-brown, fine SAND, some Silt, some fine to coarse Gravel (Pieces of Brick in end of sampler)	1 2		SAND	4
5_						End of exploration at 4 feet.				,
10_										
15										
20										
25										
30										

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

2 - Collected samples from potential laboratory analysis from 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

GZA TEMPLATE GEOPROBE; 8/8/2013; 9:51:56 AM REMARKS

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

**COMMERCIAL FOUNDRY** 326 South Street New Britain, CT

**EXPLORATION NO.: Ext-10** SHEET: 1 of 1 PROJECT NO: 05.0043369.83

**REVIEWED BY:** 

Logged By: B. Graham Drilling Co.: Zebra Drilling Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 4 Date Start - Finish: 7/2/2013 - 7/2/2013 H. Datum: V. Datum:

Type of Rig:GeoProbe Rig Model: 8 M **Drilling Method:**Direct Push Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 **Rock Core Size:** 

Groundwater Depth (ft.) Date Time **Water Depth** Stab. Time

	No.	San Depth (ft.)	Pen.	Rec.	PID	Sample Description	Remark	Stratum Description	Depth
(ft)	No.		Pen.	Rec.	PID	33	_	: Œ Stratuiii	
		(11.)	(in)	(in)	(ppm)	Modified Burmister	_ å   ⊔	Description	De
	S-1	0-2	24	20	ND	S-1: 0-2": Organic TOPSOIL	1	•	
+						2-20": Red-brown, fine to medium SAND, some Silt, some fine	2		
+	S-2	2-4	24	24	ND	Gravel	_	SAND	
4	3-2	2-4				S-2: Red-brown, fine SAND, some Silt, trace fine to coarse			
1						Gravel			
5						End of exploration at 4 feet.			
Ī									
1									
+									
+									
4									
10 _									
_									
1									
1									
45									
15									
4									
4									
20									
1									
+									
4									
4									
25 _									
1									
1									
30									
ω ·	1 - So	il samples	scree	ned v	vith a 10.6	eV MiniRAE photoionization detector (PID). PID values represent	meter re	sponse in parts per mil	llion
<b>≿</b> ∣(	(ppm)	relative to	benze	ene ir	air and ab	ove background readings. ND=None Detected above background	1.		
¥ 2	2 - Co	llected sar	nples	trom	potential la	boratory analysis from 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-	3', 3.75-	4' below grade.	
묎									
Stratif	ficatio	n lines rep	resen	t app	roximate bo	oundaries between soil types. Actual transitions may be gradual. W under the conditions stated. Fluctuations of groundwater may occu s the measurements were made.	/ater leve	el	
roadin									

<sup>1 -</sup> Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. ND=None Detected above background.

2 - Collected samples from potential laboratory analysis from 0.25-0.5', 0.5-0.75', 0.75-1.0', 1.75-2', 2.75-3', 3.75-4' below grade.

#### **GEOPROBE LOG**

GZA
GeoEnvironmental, Inc.
Engineers and Scientists

COMMERCIAL FOUNDRY 326 South Street New Britain, CT

7/2/2013 - 7/2/2013

EXPLORATION NO.: Ext-106 SHEET: 1 of 1

PROJECT NO: 05.0043369.83 REVIEWED BY:

Logged By: A. Trani
Drilling Co.: Zebra Drilling
Foreman: Eric Pope

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 6 H. Datum: V. Datum:

Type of Rig:GeoProbe Rig Model: 8 M Drilling Method:Direct Push Sampler Type: Macro Core Sampler O.D. (in.): 2.0 Sampler Length (in.):36 Rock Core Size:

Date Start - Finish:

Groundwater Depth (ft.)

Date Time Water Depth Stab. Time

					1000 0000							
Depth	Sample			Sample Sample Description							<u> </u>	
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister			Remark	Elev. (ft.)	Stratum Descriptior	Depth (ft.)
-	S-1	2-4	24	18		S-1: Top 12": Red-brown, Clayey SILT, trac Grass	ce Concrete,	fine	1		FILL	3
5 <u>_</u>	S-2	4-6	24	24		Bottom 12": Red-brown Clayey SILT, trace Sand, wet S-2:  CLAYEY SILT				-T •		
-						End of exploration at 6 feet.						
10 _ -												
- - 15 _												
20 _												
- - - 25 _												
- 30												

REMARKS

1 - Samples collected 2-4' and 4-6' below grade for potential laboratory analysis.

GZA TEMPLATE GEOPROBE; 8/8/2013; 9:51:54 AM

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Ext-106

#### **GEOPROBE LOG** Commercial Foundry **EXPLORATION NO.:** MW-3R **GZA** 326 South Street SHEET: 1 of 1 GeoEnvironmental, Inc. PROJECT NO: 43369.82 New Britain, Connecticut Engineers and Scientists **REVIEWED BY:** Geoprobe Location: See Plan Logged By: S. Pavlesich H. Datum: Drilling Co.: Zebra Ground Surface Elev. (ft.): V. Datum: Foreman: Luke Final Geoprobe Depth (ft.): 15 Date Start - Finish: 12/26/2013 - 12/26/2013 Groundwater Depth (ft.) Type of Rig:GeoProbe Sampler Type:MC Date Time Water Depth Stab. Time Rig Model: 6620DT Sampler O.D. (in.):2.0 **Drilling Method:**Direct Push Sampler Length (in.)60 **Rock Core Size:** Sample Equipment Installed Stratum Dept. (#) Remark Depth Sample Description Roadway Pen. Rec PID\* Depth (ft) Modified Burmister Box (in) (in) No (ft.) (ppm) Description 60 6 S-1 0-5 Gray, fine to coarse GRAVEL ND ✓Native (0.5-1') **B**entonite **GRAVEL** (1-3')5 ND 5-10 S-2 60 48 Dark brown-red CLAY, moist, no odor or stain, water around 5 to 6 feet **CLAY** Filter Sand (3-15')10 ND 2" PVC Screen 48 S-3 10-15 60 Top 24": Dark brown-red CLAY (5-15')Bottom 24": Dark brown-red, fine SAND and SILT, trace fine Gravel, tight, no odor or stain SAND AND SILT 15 2 End of exploration at 15 feet. 20 25 REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A """ indicates a sample sent to a laboratory for additional analyses or screening. ND=None Detected above background.
2 - 10 feet of 2 inch diameter, Schedule 40, threaded, flush joint, 10-slot PVC well screen set at approximately 15 feet below grade. Well completed to ground surface with a 2 inch diameter, Schedule 40, threaded, flush joint, PVC riser. Filter sand placed in annulus around well from 3 to 15 feet below grade. Bentonite seal installed from 1 to 3 feet below grade. Remaining annulus filled with native from 0.5 to 1 feet below grade. Well protected with flush mount.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP; 5/3/2013; 9:34:52 AM

## APPENDIX C LABORATORY ANALYTICAL REPORTS



Sunday, December 23, 2012

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERICIAL FOUNDRY 43369.82

Sample ID#s: BD10647 - BD10650

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

December 23, 2012

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/19/12 12:40 Received by: Location Code: **GZA-PCB** SW 12/19/12 14:09 Analyzed by: see "By" below

Rush Request: 24 Hour

P.O.#:

**Laboratory Data** 

SDG ID: GBD10647

Phoenix ID: BD10647

COMMERICIAL FOUNDRY 43369.82 Project ID:

Client ID: A14-F-1 (0-0.5 IN)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/20/12	LB	E160.3
Extraction for PCB	Completed			12/19/12	BB/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	84		%	12/20/12	AW	30 - 150 %
% TCMX	75		%	12/20/12	AW	30 - 150 %

Page 1 of 8 Ver 1 Project ID: COMMERICIAL FOUNDRY 43369.82

Client ID: A14-F-1 (0-0.5 IN)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

December 23, 2012

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD10647

Page 2 of 8 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

December 23, 2012

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/19/12 12:50 Received by: Location Code: **GZA-PCB** SW 12/19/12 14:09 Rush Request: 24 Hour Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD10647

Phoenix ID: BD10648

COMMERICIAL FOUNDRY 43369.82 Project ID:

Client ID: A14-F-2 (0-0.5 IN)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/20/12	LB	E160.3
Extraction for PCB	Completed			12/19/12	BB/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	77		%	12/20/12	AW	30 - 150 %
% TCMX	78		%	12/20/12	AW	30 - 150 %

Ver 1 Page 3 of 8

Project ID: COMMERICIAL FOUNDRY 43369.82

Client ID: A14-F-2 (0-0.5 IN)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

December 23, 2012

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD10648

Page 4 of 8 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

December 23, 2012

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/19/12 13:00 Received by: Location Code: **GZA-PCB** SW 12/19/12 14:09 Rush Request: 24 Hour Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD10647 Phoenix ID: BD10649

COMMERICIAL FOUNDRY 43369.82 Project ID:

Client ID: A14-F-3 (0-0.5 IN)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/20/12	LB	E160.3
Extraction for PCB	Completed			12/19/12	BB/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	74		%	12/20/12	AW	30 - 150 %
% TCMX	74		%	12/20/12	AW	30 - 150 %

Page 5 of 8 Ver 1 Project ID: COMMERICIAL FOUNDRY 43369.82

Client ID: A14-F-3 (0-0.5 IN)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

December 23, 2012

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD10649

Page 6 of 8 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

December 23, 2012

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/19/12 13:10 Received by: Location Code: **GZA-PCB** SW 12/19/12 14:09 Rush Request: 24 Hour Analyzed by: see "By" below

rtaon rtoquoot.

P.O.#:

**Laboratory Data** 

SDG ID: GBD10647

Phoenix ID: BD10650

Project ID: COMMERICIAL FOUNDRY 43369.82

Client ID: A14-F-4 (0-0.5 IN)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/20/12	LB	E160.3
Extraction for PCB	Completed			12/19/12	BB/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1248	2.7	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/20/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	106		%	12/20/12	AW	30 - 150 %
% TCMX	80		%	12/20/12	AW	30 - 150 %

Page 7 of 8 Ver 1

Project ID: COMMERICIAL FOUNDRY 43369.82

Client ID: A14-F-4 (0-0.5 IN)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

December 23, 2012

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD10650

Page 8 of 8 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

December 23, 2012

## QA/QC Data

			~
SDG	11) ·	GBD1	0647

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits	
QA/QC Batch 216596, QC Sample No: BD10340 (BD10647, BD10648, BD10649, BD10650)										
Polychlorinated Biph	<u>enyls - Solid</u>									
PCB-1016	ND	80	79	1.3	79			40 - 140	30	
PCB-1221	ND							40 - 140	30	
PCB-1232	ND							40 - 140	30	
PCB-1242	ND							40 - 140	30	
PCB-1248	ND							40 - 140	30	
PCB-1254	ND							40 - 140	30	
PCB-1260	ND	93	92	1.1	192			40 - 140	30	m
PCB-1262	ND							40 - 140	30	
PCB-1268	ND							40 - 140	30	
% DCBP (Surrogate Rec)	107	103	104	1.0	88			30 - 150	30	
% TCMX (Surrogate Rec)	109	111	110	0.9	90			30 - 150	30	

m = This parameter is outside laboratory ms/msd specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

**RPD** - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

December 23, 2012

Sunday, December 23, 2012 Requested Criteria: None **Sample Criteria Exceedences Report** GBD10647 - GZA-PCB

State: CT

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

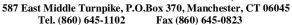
Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: GZA-PCB											
Proje	ect Location:										
Labo	oratory Sample	e <b>ID(s):</b> BD10647	', BD10648,	BD10649, BD1	0650						
Sam	pling Date(s):	12/19/2012									
RCP	Methods Used	d:									
13	311/1312	☐ EPH		TO15							
✓ 80	▼ 8082										
1.	1. For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?   ✓ Yes □ No										
1a.	Were the method	d specified preserva	tion and holdin	ig time requireme	ents met?	✓ Yes	□No				
1b.		ethods only: Was t cations (see section				☐ Yes	□ No	✓ NA			
2.		received by the lab associated Chain-c			t with that	✓ Yes	□No				
3.	Were samples re	ceived at an approp	riate temperat	ure (< 6 Degrees	: C)?	☐ Yes	✓ No	□NA			
4.	Were all QA/QC documents achie	performance criteria ved?	a specified in th	ne Reasonable C	onfidence Protocol	✓ Yes	□ No				
5a.	Were reporting li	mits specified or refe	erenced on the	chain-of-custod	y?	✓ Yes	□ No				
5b.	Were these repo	rting limits met?				✓ Yes	□ No	□NA			
6.	reported for all co	al method reference onstituents identified Confidence Protoco	in the method			✓ Yes	□ No	□NA			
7.	Are project-spec	fic matrix spikes and	d laboratory du	plicates included	in the data set?	□ Yes	✓ No	□NA			
Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".											
and	I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.										
		-	1		Doto: Sund	ov Dooo	hor 22 (	2012			
	horized nature:	Mala	Nov	Print	Date: Sund ed Name: Mary	•	Der 23, 2	2012			
		,	V		Position: Proje	ct Manage	r				







# **RCP Certification Report**

**December 23, 2012** 

**SDG I.D.: GBD10647** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** <u>Au-ecd8 12/20/12-1 (BD10647, BD10648, BD10649, BD10650)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/20/2012

QC Comments: QC Batch 16596 12/18/12 (BD10647, BD10648, BD10649, BD10650)

#### QC (Batch Specific)

----- Sample No: BD10340, QA/QC Batch: 216596 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**

The samples in this delivery group were received at  $8^{\circ}$ C. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

Coolant: IPK | ICE N N \* SURCHARGE APPLIES Phoenix Std Report Full Data Package\* Tier II Checklist Email: jams. hata eg Br. con Data Package Excel
R PDF
GIS/Key Data Format Ru che mo ☐ EQuIS Other  $^{\circ}\mathrm{C}$  Pg Temp 🔇 MA MCP Certification ☐ MWRA eSMART ☐ Other. Project P.O: Phone #: Fax #: ☐ GW-2 ☐ GW-3 Data Delivery: ☐ GW-1 □ s-1 S 52 to los to State where samples were collected: Residential DEC SW Protection GA Mobility ☐ GW Protection GB Mobility CI KARCP Cert ☐ I/C DEC 45369.82 | Ri | Direct Exposure | Residential) 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 **CHAIN OF CUSTODY RECORD** conversion Franky Jin Hutter 一十十十八 ©W □ Other \* SURCHARGE APPLIES ACO DE LANGUE Invoice to: Report to: Project: 3 Days\*
Standard
Other Analysis Request **X** 1 Day\* □ 2 Days\* urnaround: Time Sampled Date: 12/19/12 1250 1300 12/18/15 1240 DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other Date Sampled Client Sample - Information - dentification 06033 \* Deserver Timis Lass How 05 ppm over Sample Matrix Customer: (324 Geo Eminan nett Environmental Laboratories, Inc Comments, Special Requirements or Regulations Accepted by: AIU-F-4 (0-0.5") MAIH- F-3 (0-0.5) A14-F-2 (0-0.5") A14-FICO-0.5" Customer Sample oss Wint Identification ( Jasten lang PHOENIX USE ONLY Relinquished by Address: Matrix Code: SAMPLE # 007 Sampler's Signature



Thursday, January 03, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY Sample ID#s: BD12627 - BD12645, BD12651 - BD12658

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A.B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOIL Collected by: 12/24/12 9:40 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 24 Hour Analyzed by: see "By" below

Rush Request:

P.O.#:

**Laboratory Data** 

SDG ID: GBD12627

Phoenix ID: BD12627

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A14 S-3 (1.5-1.75 FT)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 90 % E160.3 12/26/12 jΙ BQ/K/E SW3540C Extraction for PCB Completed 12/26/12 PCB (Soxhlet) PCB-1016 ND 0.072 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 0.072 mg/kg 12/28/12 AW 3540C/8082 ND 0.072 12/28/12 ΑW 3540C/8082 PCB-1232 mg/kg ND 0.072 12/28/12 ΑW 3540C/8082 PCB-1242 mg/kg 0.072 12/28/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.072 mg/kg 12/28/12 AW 0.072 3540C/8082 PCB-1260 ND 12/28/12 ΑW mg/kg PCB-1262 ND 0.072 mg/kg 12/28/12 ΑW 3540C/8082 ND 0.072 12/28/12 ΑW 3540C/8082 PCB-1268 mg/kg 3540C/8082 0.35 0.072 12/28/12 AW Total PCBs mg/kg **QA/QC Surrogates** % DCBP 76 % 12/28/12 AW 30 - 150 % 80 12/28/12 ΑW 30 - 150 % % TCMX %

> Page 1 of 40 Ver 1

Client ID: A14 S-3 (1.5-1.75 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12627

Page 2 of 40 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOIL Collected by: 12/24/12 9:45 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: 24 Hour Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD12627

Phoenix ID: BD12628

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A14 S-4 (2.5-2.75 FT)

RL/ **PQL** Parameter Result Units Date/Time Βv Reference Percent Solid % E160.3 82 12/26/12 jΙ BQ/K/E SW3540C Extraction for PCB Completed 12/26/12 PCB (Soxhlet) PCB-1016 ND 39 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 39 mg/kg 12/28/12 AW 3540C/8082 ND 12/28/12 ΑW 3540C/8082 PCB-1232 39 mg/kg ND 12/28/12 ΑW 3540C/8082 PCB-1242 39 mg/kg 39 12/28/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 39 mg/kg 12/28/12 AW 3540C/8082 PCB-1260 ND 39 12/28/12 ΑW mg/kg PCB-1262 ND 39 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1268 ND 12/28/12 ΑW 3540C/8082 39 mg/kg 3540C/8082 420 12/28/12 AW Total PCBs 39 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 12/28/12 AW 30 - 150 % Diluted Out 12/28/12 ΑW 30 - 150 % % TCMX %

> Page 3 of 40 Ver 1

Client ID: A14 S-4 (2.5-2.75 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12628

Page 4 of 40 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOIL Collected by: 12/24/12 9:50 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15

Rush Request: 24 Hour Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD12627

Phoenix ID: BD12629

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A14 S-5 (2.75-3.0 FT)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 87 % E160.3 12/26/12 jΙ BQ/K/E SW3540C Extraction for PCB Completed 12/26/12 PCB (Soxhlet) PCB-1016 ND 0.076 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 0.076 mg/kg 12/28/12 AW 3540C/8082 ND 0.076 12/28/12 ΑW 3540C/8082 PCB-1232 mg/kg ND 0.076 12/28/12 ΑW 3540C/8082 PCB-1242 mg/kg 0.076 12/28/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.076 mg/kg 12/28/12 AW 3540C/8082 PCB-1260 ND 0.076 12/28/12 ΑW mg/kg PCB-1262 ND 0.076 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1268 ND 0.076 12/28/12 ΑW 3540C/8082 mg/kg 3540C/8082 0.076 12/28/12 AW Total PCBs 1 mg/kg **QA/QC Surrogates** % DCBP 80 % 12/28/12 AW 30 - 150 % 78 12/28/12 ΑW 30 - 150 % % TCMX %

> Page 5 of 40 Ver 1

Client ID: A14 S-5 (2.75-3.0 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12629

Page 6 of 40 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/24/12 8:15 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD12627

Phoenix ID: BD12630

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A14 S-6 (2.5-2.75 FT)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 85 % E160.3 12/26/12 jΙ BQ/K/E SW3540C Extraction for PCB Completed 12/26/12 PCB (Soxhlet) PCB-1016 ND 0.076 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 0.076 mg/kg 12/28/12 AW 3540C/8082 ND 0.076 12/28/12 ΑW 3540C/8082 PCB-1232 mg/kg ND 0.076 12/28/12 ΑW 3540C/8082 PCB-1242 mg/kg 0.076 12/28/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 0.076 mg/kg 12/28/12 AW 3540C/8082 PCB-1260 ND 0.076 12/28/12 ΑW mg/kg PCB-1262 ND 0.076 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1268 ND 0.076 12/28/12 ΑW 3540C/8082 mg/kg 3540C/8082 0.63 0.076 12/28/12 AW Total PCBs mg/kg **QA/QC Surrogates** % DCBP 80 % 12/28/12 AW 30 - 150 % 73 12/28/12 ΑW 30 - 150 % % TCMX %

Page 7 of 40 Ver 1

Client ID: A14 S-6 (2.5-2.75 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12630

Page 8 of 40 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOIL Collected by: 12/24/12 9:30 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD12627

Phoenix ID: BD12631

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A14 S-7 (2.5-2.75 FT)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 83 % E160.3 12/26/12 jΙ Extraction for PCB BQ/K/E SW3540C Completed 12/26/12 PCB (Soxhlet) PCB-1016 ND 0.079 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 0.079 mg/kg 12/28/12 AW 3540C/8082 ND 0.079 12/28/12 ΑW 3540C/8082 PCB-1232 mg/kg ND 0.079 12/28/12 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.079 12/28/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.079 mg/kg 12/28/12 AW 0.079 3540C/8082 PCB-1260 ND 12/28/12 ΑW mg/kg PCB-1262 ND 0.079 mg/kg 12/28/12 ΑW 3540C/8082 ND 0.079 12/28/12 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP 80 % 12/28/12 AW 30 - 150 % 72 % 12/28/12 30 - 150 % % TCMX

Page 9 of 40 Ver 1

Client ID: A14 S-7 (2.5-2.75 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12631

Page 10 of 40 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOIL Collected by: 12/24/12 9:35 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Standard Analyzed by: see "By" below

Rush Request:

P.O.#:

Laboratory Data

SDG ID: GBD12627 Phoenix ID: BD12632

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A14 S-8 (2.75-3 FT)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid % E160.3 86 12/26/12 jΙ BQ/K/E SW3540C Extraction for PCB Completed 12/26/12 PCB (Soxhlet) PCB-1016 ND 0.077 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 0.077 mg/kg 12/28/12 AW 3540C/8082 ND 12/28/12 ΑW 3540C/8082 PCB-1232 0.077 mg/kg ND 0.077 12/28/12 ΑW 3540C/8082 PCB-1242 mg/kg 0.077 12/28/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.077 mg/kg 12/28/12 AW 3540C/8082 PCB-1260 ND 0.077 12/28/12 ΑW mg/kg PCB-1262 ND 0.077 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1268 ND 0.077 12/28/12 ΑW 3540C/8082 mg/kg 3540C/8082 0.077 12/28/12 AW Total PCBs 0.15 mg/kg **QA/QC Surrogates** % DCBP 83 % 12/28/12 AW 30 - 150 % 77 12/28/12 ΑW 30 - 150 % % TCMX %

> Page 11 of 40 Ver 1

Client ID: A14 S-8 (2.75-3 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12632

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/24/12 12:05 Received by: **GZA-PCB** Location Code: SW 12/26/12 16:15 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

Laboratory Data

SDG ID: GBD12627

Phoenix ID: BD12633

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A14 S-9 (2.5-2.75 FT)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 83 % E160.3 12/26/12 jΙ BQ/K/E SW3540C Extraction for PCB Completed 12/26/12 PCB (Soxhlet) PCB-1016 ND 0.079 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 0.079 mg/kg 12/28/12 AW 3540C/8082 ND 0.079 12/28/12 ΑW 3540C/8082 PCB-1232 mg/kg ND 0.079 12/28/12 ΑW 3540C/8082 PCB-1242 mg/kg 0.079 12/28/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 0.079 mg/kg 12/28/12 AW 0.079 3540C/8082 PCB-1260 ND 12/28/12 ΑW mg/kg PCB-1262 ND 0.079 mg/kg 12/28/12 ΑW 3540C/8082 ND 0.079 12/28/12 ΑW 3540C/8082 PCB-1268 mg/kg 3540C/8082 0.94 0.079 12/28/12 AW Total PCBs mg/kg **QA/QC Surrogates** % DCBP 80 % 12/28/12 AW 30 - 150 % 74 12/28/12 ΑW 30 - 150 % % TCMX %

> Page 13 of 40 Ver 1

Client ID: A14 S-9 (2.5-2.75 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12633

Page 14 of 40 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOIL Collected by: 12/24/12 12:10 Received by: Location Code: **GZA-PCB** SW 12/26/12 16:15 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD12627 Phoenix ID: BD12634

05.0043369.82 COMMERCIAL FOUNDRY Project ID:

Client ID: A14 S-10 (1.5-1.75 FT)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	90		%	12/26/12	jl	E160.3
Extraction for PCB	Completed			12/26/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.73	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.73	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.73	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.73	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	*	0.73	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	*	0.73	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.73	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.73	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.73	mg/kg	12/28/12	AW	3540C/8082
Total PCBs	5.5	0.73	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	108		%	12/28/12	AW	30 - 150 %
% TCMX	112		%	12/28/12	AW	30 - 150 %

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Client ID: A14 S-10 (1.5-1.75 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12634

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOIL Collected by: 12/24/12 12:12 Received by: Location Code: **GZA-PCB** SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD12627 Phoenix ID: BD12635

05.0043369.82 COMMERCIAL FOUNDRY Project ID:

A14 S-11 (2.75-3.0 FT) Client ID:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	87		%	12/26/12	jl	E160.3
Extraction for PCB	Completed			12/26/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.75	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.75	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.75	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.75	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	*	0.75	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	*	0.75	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.75	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.75	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.75	mg/kg	12/28/12	AW	3540C/8082
Total PCBs	4.1	0.75	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	92		%	12/28/12	AW	30 - 150 %
% TCMX	96		%	12/28/12	AW	30 - 150 %

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Client ID: A14 S-11 (2.75-3.0 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12635

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/24/12 12:15 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD12627

Phoenix ID: BD12636

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A14 S-12 (2.75-3.0 FT)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 87 % E160.3 12/26/12 jΙ BQ/K/E SW3540C Extraction for PCB Completed 12/26/12 PCB (Soxhlet) PCB-1016 ND 0.076 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 0.076 mg/kg 12/28/12 AW 3540C/8082 ND 0.076 12/28/12 ΑW 3540C/8082 PCB-1232 mg/kg ND 0.076 12/28/12 ΑW 3540C/8082 PCB-1242 mg/kg 0.076 12/28/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 0.076 mg/kg 12/28/12 AW 3540C/8082 PCB-1260 ND 0.076 12/28/12 ΑW mg/kg PCB-1262 ND 0.076 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1268 ND 0.076 12/28/12 ΑW 3540C/8082 mg/kg 3540C/8082 0.076 12/28/12 AW Total PCBs 0.12 mg/kg **QA/QC Surrogates** % DCBP 79 % 12/28/12 AW 30 - 150 % 77 12/28/12 ΑW 30 - 150 % % TCMX %

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Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A14 S-12 (2.75-3.0 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12636

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

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Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/24/12 12:20 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD12627

Phoenix ID: BD12637

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A14 S-13 (3.5-3.75 FT)

RL/ **PQL** Parameter Result Units Date/Time Βv Reference Percent Solid 77 % 12/26/12 jΙ E160.3 BQ/K/E SW3540C Extraction for PCB Completed 12/26/12 PCB (Soxhlet) PCB-1016 ND 210 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 210 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 210 mg/kg ND 210 12/31/12 ΑW 3540C/8082 PCB-1242 mg/kg 210 12/31/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 210 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 210 ΑW mg/kg PCB-1262 ND 210 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1268 ND 210 12/31/12 ΑW 3540C/8082 mg/kg 3540C/8082 710 12/31/12 AW Total PCBs 210 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 12/31/12 AW 30 - 150 % Diluted Out 12/31/12 ΑW 30 - 150 % % TCMX %

> Page 21 of 40 Ver 1

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A14 S-13 (3.5-3.75 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12637

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOLID Collected by: 12/24/12 9:25 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

Rush Request. Stan

P.O.#:

Laboratory Data

SDG ID: GBD12627

Phoenix ID: BD12638

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: ORANGEBORING PIPE

RL/ **PQL** Parameter Result Units Date/Time Βv Reference Percent Solid 43 % E160.3 12/26/12 jΙ BQ/K/E SW3540C Extraction for PCB Completed 12/26/12 PCB (Soxhlet) PCB-1016 ND 470 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 470 mg/kg 12/28/12 AW 3540C/8082 ND 12/28/12 ΑW 3540C/8082 PCB-1232 470 mg/kg ND 470 12/28/12 ΑW 3540C/8082 PCB-1242 mg/kg 470 12/28/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 470 mg/kg 12/28/12 AW 3540C/8082 PCB-1260 ND 470 12/28/12 ΑW mg/kg PCB-1262 ND 470 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1268 ND 12/28/12 ΑW 3540C/8082 470 mg/kg 3540C/8082 6100 470 12/28/12 AW Total PCBs mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 12/28/12 AW 30 - 150 % Diluted Out 12/28/12 ΑW 30 - 150 % % TCMX %

Page 23 of 40 Ver 1

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: ORANGEBORING PIPE

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

# **Comments:**

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12638

Page 24 of 40 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: 12/24/12 11:15 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 see "By" below

Rush Request: Standard Analyzed by:

P.O.#:

\_aboratory Data

SDG ID: GBD12627 Phoenix ID: BD12639

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A4-CEIL-1

RL/ **PQL** Units Date/Time Parameter Result Reference BQ/K/E SW-3540C PCB Wipe Extraction 12/26/12 Completed **Polychlorinated Biphenyls** PCB-1016 ND 12/31/12 SW8082 0.50 AW ug PCB-1221 ND 0.50 12/31/12 ΑW SW8082 ug SW8082 PCB-1232 ND 0.50 ug 12/31/12 AW SW8082 ND 12/31/12 ΑW PCB-1242 0.50 ug SW8082 12/31/12 ΑW PCB-1248 0.50 ug ND 12/31/12 AW SW8082 PCB-1254 0.50 ug SW8082 PCB-1260 ND 0.50 12/31/12 AW ug 12/31/12 SW8082 PCB-1262 ND 0.50 AW ug PCB-1268 ND 0.50 ug 12/31/12 AW SW8082 12/31/12 ΑW SW8082 Total PCBs 0.8 0.50 ug **QA/QC Surrogates** % DCBP 70 % 12/31/12 AW 30 - 150 % % TCMX 65 % 12/31/12 30 - 150 %

> Page 25 of 40 Ver 1

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A4-CEIL-1

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12639

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date 12/24/12 Matrix: SOLID Collected by: 8:40 Received by: Location Code: **GZA-PCB** SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD12627

Phoenix ID: BD12640

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A11-CEIL-1

RI/ **PQL** Units Parameter Result Date/Time Reference PCB Wipe Extraction 12/26/12 BQ/K/E SW-3540C Completed Polychlorinated Biphenyls PCB-1016 ND 0.50 12/27/12 AW SW8082 ug PCB-1221 ND 0.50 12/27/12 AW SW8082 ug PCB-1232 ND 0.50 ug 12/27/12 SW8082 ND 12/27/12 SW8082 PCB-1242 0.50 ug AW ND 12/27/12 SW8082 PCB-1248 0.50 ΑW ug ND 12/27/12 SW8082 PCB-1254 0.50 AW ug SW8082 PCB-1260 ND 0.50 12/27/12 ΑW ug PCB-1262 ND 0.50 12/27/12 AW SW8082 ug PCB-1268 ND 0.50 ug 12/27/12 AW SW8082 **QA/QC Surrogates** % DCBP 67 % 12/27/12 AW 30 - 150 % 61 % 12/27/12 ΑW 30 - 150 % % TCMX

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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January 03, 2013

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: 12/24/12 10:25 Location Code: **GZA-PCB** Received by: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

<u>aboratory</u> Data

SDG ID: GBD12627

Phoenix ID: BD12641

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A10-CEIL-1

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
PCB Wipe Extraction	Completed			12/26/12	BQ/K/E	SW-3540C
Polychlorinated Bipheny	l <u>s</u>					
PCB-1016	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1221	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1232	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1242	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1248	0.50	0.50	ug	12/28/12	AW	SW8082
PCB-1254	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1260	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1262	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1268	ND	0.50	ug	12/28/12	AW	SW8082
QA/QC Surrogates						
% DCBP	74		%	12/28/12	AW	30 - 150 %
% TCMX	72		%	12/28/12	AW	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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January 03, 2013

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date 12/24/12 10:20 Matrix: SOLID Collected by: Received by: Location Code: **GZA-PCB** SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD12627

Phoenix ID: BD12642

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A10-CEIL-2

RI/ Units Parameter Result **PQL** Date/Time Reference PCB Wipe Extraction 12/27/12 BQ/K/E SW-3540C Completed Polychlorinated Biphenyls PCB-1016 ND 0.50 12/28/12 ΑW SW8082 ug PCB-1221 ND 0.50 12/28/12 AW SW8082 ug PCB-1232 ND 0.50 ug 12/28/12 SW8082 ND 12/28/12 SW8082 PCB-1242 0.50 ug AW ND 12/28/12 SW8082 PCB-1248 0.50 ΑW ug ND 12/28/12 SW8082 PCB-1254 0.50 AW ug SW8082 PCB-1260 ND 0.50 12/28/12 AW ug PCB-1262 ND 0.50 12/28/12 ΑW SW8082 ug PCB-1268 ND 0.50 ug 12/28/12 AW SW8082 **QA/QC Surrogates** % DCBP 73 % 12/28/12 AW 30 - 150 % 72 % 12/28/12 ΑW 30 - 150 % % TCMX

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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Phyllis Shiller, Laboratory Director

January 03, 2013

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date 12/24/12 Matrix: SOLID Collected by: 10:15 Received by: Location Code: **GZA-PCB** SW 12/26/12 16:15 Standard Analyzed by: see "By" below

Rush Request:

P.O.#:

\_aboratory Data

SDG ID: GBD12627

Phoenix ID: BD12643

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A10-CEIL-3

RI/ Units Parameter Result **PQL** Date/Time Reference PCB Wipe Extraction 12/27/12 BQ/K/E SW-3540C Completed Polychlorinated Biphenyls PCB-1016 ND 0.50 12/28/12 ΑW SW8082 ug PCB-1221 ND 0.50 12/28/12 AW SW8082 ug PCB-1232 ND 0.50 ug 12/28/12 SW8082 ND 12/28/12 SW8082 PCB-1242 0.50 ug AW ND 12/28/12 SW8082 PCB-1248 0.50 ΑW ug ND 12/28/12 SW8082 PCB-1254 0.50 AW ug SW8082 PCB-1260 ND 0.50 12/28/12 AW ug PCB-1262 ND 0.50 12/28/12 ΑW SW8082 ug PCB-1268 ND 0.50 ug 12/28/12 AW SW8082 **QA/QC Surrogates** % DCBP 71 % 12/28/12 AW 30 - 150 % 72 % 12/28/12 ΑW 30 - 150 % % TCMX

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

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January 03, 2013

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: 12/24/12 10:10 Location Code: **GZA-PCB** Received by: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD12627

Phoenix ID: BD12644

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A10-CEIL-4

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
PCB Wipe Extraction	Completed			12/27/12	BQ/K/E	SW-3540C
Polychlorinated Biphenyl	<u>s</u>					
PCB-1016	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1221	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1232	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1242	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1248	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1254	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1260	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1262	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1268	ND	0.50	ug	12/28/12	AW	SW8082
QA/QC Surrogates						
% DCBP	73		%	12/28/12	AW	30 - 150 %
% TCMX	76		%	12/28/12	AW	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date 12/24/12 Matrix: SOLID Collected by: 9:55 Received by: Location Code: **GZA-PCB** SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD12627

Phoenix ID: BD12645

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A12-CEIL-5

RI/ Units Parameter Result **PQL** Date/Time Reference PCB Wipe Extraction 12/27/12 BQ/K/E SW-3540C Completed Polychlorinated Biphenyls PCB-1016 ND 0.50 12/28/12 ΑW SW8082 ug PCB-1221 ND 0.50 12/28/12 AW SW8082 ug PCB-1232 ND 0.50 ug 12/28/12 SW8082 ND 12/28/12 SW8082 PCB-1242 0.50 ug AW ND 12/28/12 SW8082 PCB-1248 0.50 ΑW ug ND 12/28/12 SW8082 PCB-1254 0.50 AW ug SW8082 PCB-1260 ND 0.50 12/28/12 AW ug PCB-1262 ND 0.50 12/28/12 ΑW SW8082 ug PCB-1268 ND 0.50 ug 12/28/12 AW SW8082 **QA/QC Surrogates** 70 % DCBP % 12/28/12 AW 30 - 150 % 72 % 12/28/12 ΑW 30 - 150 % % TCMX

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: **WIPE** Collected by: 12/24/12 11:00 Location Code: **GZA-PCB** Received by: SW 12/26/12 16:15 Rush Request: Analyzed by: see "By" below

\_. ,

Standard

P.O.#:

\_aboratory Data

SDG ID: GBD12627

Phoenix ID: BD12651

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A10-CEIL-11

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
PCB Wipe Extraction	Completed			12/27/12	BQ/K/E	SW-3540C
Polychlorinated Biphe	enyls					
PCB-1016	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1221	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1232	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1242	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1248	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1254	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1260	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1262	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1268	ND	0.50	ug	12/28/12	AW	SW8082
QA/QC Surrogates						
% DCBP	73		%	12/28/12	AW	30 - 150 %
% TCMX	71		%	12/28/12	AW	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date **WIPE** 12/24/12 11:05 Matrix: Collected by: Received by: Location Code: **GZA-PCB** SW 12/26/12 16:15 Standard Analyzed by: see "By" below

Rush Request:

P.O.#:

\_aboratory Data

SDG ID: GBD12627

Phoenix ID: BD12652

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A10-CEIL-12

RI/ Units Parameter Result **PQL** Date/Time Reference PCB Wipe Extraction 12/27/12 BQ/K/E SW-3540C Completed Polychlorinated Biphenyls PCB-1016 ND 0.50 12/28/12 ΑW SW8082 ug PCB-1221 ND 0.50 12/28/12 AW SW8082 ug PCB-1232 ND 0.50 ug 12/28/12 SW8082 ND 12/28/12 SW8082 PCB-1242 0.50 ug AW ND 12/28/12 SW8082 PCB-1248 0.50 ΑW ug ND 12/28/12 SW8082 PCB-1254 0.50 AW ug SW8082 PCB-1260 ND 0.50 12/28/12 AW ug PCB-1262 ND 0.50 12/28/12 ΑW SW8082 ug PCB-1268 ND 0.50 ug 12/28/12 AW SW8082 **QA/QC Surrogates** % DCBP 73 % 12/28/12 AW 30 - 150 % 79 % 12/28/12 ΑW 30 - 150 % % TCMX

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: **WIPE** Collected by: 12/24/12 11:10 Location Code: **GZA-PCB** Received by: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

\_. ,

P.O.#:

\_aboratory Data

SDG ID: GBD12627

Phoenix ID: BD12653

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A10-CEIL-13

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
PCB Wipe Extraction	Completed			12/27/12	BQ/K/E	SW-3540C
Polychlorinated Biphe	nyls					
PCB-1016	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1221	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1232	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1242	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1248	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1254	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1260	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1262	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1268	ND	0.50	ug	12/28/12	AW	SW8082
QA/QC Surrogates						
% DCBP	74		%	12/28/12	AW	30 - 150 %
% TCMX	71		%	12/28/12	AW	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: **WIPE** Collected by: 12/24/12 9:00 **GZA-PCB** Received by: **Location Code:** SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD12627

Phoenix ID: BD12654

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A12-CEIL-1

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
PCB Wipe Extraction	Completed			12/27/12	BQ/K/E	SW-3540C
Polychlorinated Biphenyl	<u>s</u>					
PCB-1016	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1221	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1232	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1242	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1248	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1254	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1260	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1262	ND	0.50	ug	12/28/12	AW	SW8082
PCB-1268	ND	0.50	ug	12/28/12	AW	SW8082
QA/QC Surrogates						
% DCBP	66		%	12/28/12	AW	30 - 150 %
% TCMX	66		%	12/28/12	AW	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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January 03, 2013

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date **WIPE** 12/24/12 Matrix: Collected by: 9:05 Received by: Location Code: **GZA-PCB** SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD12627

Phoenix ID: BD12655

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A12-CEIL-2

RI/ **PQL** Units Parameter Result Date/Time Reference PCB Wipe Extraction 12/27/12 BQ/K/E SW-3540C Completed Polychlorinated Biphenyls PCB-1016 ND 0.50 12/28/12 ΑW SW8082 ug PCB-1221 ND 0.50 12/28/12 AW SW8082 ug PCB-1232 ND 0.50 ug 12/28/12 SW8082 ND 12/28/12 SW8082 PCB-1242 0.50 ug AW ND 12/28/12 SW8082 PCB-1248 0.50 ΑW ug ND 12/28/12 SW8082 PCB-1254 0.50 AW ug SW8082 PCB-1260 ND 0.50 12/28/12 AW ug PCB-1262 ND 0.50 12/28/12 ΑW SW8082 ug PCB-1268 ND 0.50 ug 12/28/12 AW SW8082 **QA/QC Surrogates** % DCBP 71 % 12/28/12 AW 30 - 150 % 77 % 12/28/12 ΑW 30 - 150 % % TCMX

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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January 03, 2013

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**Analysis Report** 

January 03, 2013

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> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date **WIPE** 12/24/12 Matrix: Collected by: 9:10 Received by: Location Code: **GZA-PCB** SW 12/26/12 16:15 see "By" below

Rush Request: Standard Analyzed by:

P.O.#:

\_aboratory Data

SDG ID: GBD12627

Phoenix ID: BD12656

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A12-CEIL-3

RI/ Units Parameter Result **PQL** Date/Time Reference PCB Wipe Extraction 12/27/12 BQ/K/E SW-3540C Completed Polychlorinated Biphenyls PCB-1016 ND 0.50 12/28/12 ΑW SW8082 ug PCB-1221 ND 0.50 12/28/12 AW SW8082 ug PCB-1232 ND 0.50 ug 12/28/12 SW8082 ND 12/28/12 SW8082 PCB-1242 0.50 ug AW ND 12/28/12 SW8082 PCB-1248 0.50 ΑW ug ND 12/28/12 SW8082 PCB-1254 0.50 AW ug SW8082 PCB-1260 ND 0.50 12/28/12 AW ug PCB-1262 ND 0.50 12/28/12 ΑW SW8082 ug PCB-1268 ND 0.50 ug 12/28/12 AW SW8082 **QA/QC Surrogates** 70 % DCBP % 12/28/12 AW 30 - 150 % 76 % 12/28/12 ΑW 30 - 150 % % TCMX

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

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January 03, 2013

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: **WIPE** Collected by: 12/24/12 9:15 **GZA-PCB** Received by: **Location Code:** SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

rtaon rtoquoot.

P.O.#:

**Laboratory Data** 

SDG ID: GBD12627

Phoenix ID: BD12657

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A12-CEIL-4

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
PCB Wipe Extraction	Completed			12/27/12	BQ/K/E	SW-3540C
Polychlorinated Bipheny	<u>/ls</u>					
PCB-1016	ND	0.50	ug	12/31/12	AW	SW8082
PCB-1221	ND	0.50	ug	12/31/12	AW	SW8082
PCB-1232	ND	0.50	ug	12/31/12	AW	SW8082
PCB-1242	ND	0.50	ug	12/31/12	AW	SW8082
PCB-1248	ND	0.50	ug	12/31/12	AW	SW8082
PCB-1254	ND	0.50	ug	12/31/12	AW	SW8082
PCB-1260	ND	0.50	ug	12/31/12	AW	SW8082
PCB-1262	ND	0.50	ug	12/31/12	AW	SW8082
PCB-1268	ND	0.50	ug	12/31/12	AW	SW8082
QA/QC Surrogates						
% DCBP	78		%	12/31/12	AW	30 - 150 %
% TCMX	74		%	12/31/12	AW	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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January 03, 2013

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date **WIPE** 12/24/12 Matrix: Collected by: 9:18 Received by: Location Code: **GZA-PCB** SW 12/26/12 16:15 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

\_aboratory Data

SDG ID: GBD12627

Phoenix ID: BD12658

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A12-CEIL-5

RI/ **PQL** Units Parameter Result Date/Time Reference PCB Wipe Extraction 12/27/12 BQ/K/E SW-3540C Completed Polychlorinated Biphenyls PCB-1016 ND 0.50 12/31/12 ΑW SW8082 ug PCB-1221 ND 0.50 12/31/12 AW SW8082 ug PCB-1232 ND 0.50 ug 12/31/12 SW8082 ND 12/31/12 SW8082 PCB-1242 0.50 ug AW ND 12/31/12 SW8082 PCB-1248 0.50 ΑW ug ND 12/31/12 SW8082 PCB-1254 0.50 AW ug SW8082 PCB-1260 ND 0.50 12/31/12 ΑW ug PCB-1262 ND 0.50 12/31/12 ΑW SW8082 ug PCB-1268 ND 0.50 ug 12/31/12 AW SW8082 **QA/QC Surrogates** % DCBP 77 % 12/31/12 AW 30 - 150 % 73 % 12/31/12 ΑW 30 - 150 % % TCMX

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

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January 03, 2013

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# QA/QC Report

January 03, 2013

# QA/QC Data

SDG I.D.: GBD12627

January 03, 2013		<u> </u>		3DG 1.D GBD 12021							
Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits		
QA/QC Batch 216813, QC Sai	mple No: BD11577 (E	BD12639, BD12640, BD	2641)								
Polychlorinated Biphen											
PCB-1016	ND	92	83	10.3				40 - 140	30		
PCB-1010	ND	72	03	10.5				40 - 140	30		
PCB-1232	ND							40 - 140	30		
PCB-1242	ND							40 - 140	30		
PCB-1248	ND							40 - 140	30		
PCB-1254	ND							40 - 140	30		
PCB-1260	ND	103	100	3.0				40 - 140	30		
PCB-1262	ND	100	100	0.0				40 - 140	30		
PCB-1268	ND							40 - 140	30		
% DCBP (Surrogate Rec)	89	88	86	2.3				30 - 150	30		
% TCMX (Surrogate Rec)	91	92	91	1.1				30 - 150	30		
Comment:	, i	,2	, ,	•••				00 100	00		
A LCS and LCS Duplicate were p	performed instead of a m	atriv enika and matriv enika	dunlicate	<u>,</u>							
			-						_		
QA/QC Batch 217139, QC Sai BD12634, BD12635, BD12636			12629, E	3D12630	0, BD1:	2631, B	D12632	2, BD1263	3,		
		5)									
Polychlorinated Biphen											
PCB-1016	ND	73	70	4.2	94			40 - 140	30		
PCB-1221	ND							40 - 140	30		
PCB-1232	ND							40 - 140	30		
PCB-1242	ND							40 - 140	30		
PCB-1248	ND							40 - 140	30		
PCB-1254	ND							40 - 140	30		
PCB-1260	ND	87	82	5.9	94			40 - 140	30		
PCB-1262	ND							40 - 140	30		
PCB-1268	ND							40 - 140	30		
% DCBP (Surrogate Rec)	102	110	105	4.7	124			30 - 150	30		
% TCMX (Surrogate Rec)	101	105	98	6.9	106			30 - 150	30		
QA/QC Batch 217200, QC Sai BD12654, BD12655, BD12656 Polychlorinated Biphen	6, BD12657, BD1265		12644, E	3D1264	5, BD1:	2651, B	D12652	2, BD1265	3,		
PCB-1016	<b>-</b>	97	93	4.2				40 - 140	20		
	ND ND	91	93	4.2					30 30		
PCB-1221	ND ND							40 - 140	30		
PCB-1232	ND ND							40 - 140	30		
PCB-1242	ND							40 - 140	30		
PCB-1248	ND							40 - 140	30		
PCB-1254	ND		400	0.0				40 - 140	30		
PCB-1260	ND	102	102	0.0				40 - 140	30		
PCB-1262	ND							40 - 140	30		
PCB-1268	ND		6-	0.0				40 - 140	30		
% DCBP (Surrogate Rec)	77	85	85	0.0				30 - 150	30		

# QA/QC Data

% RPD % LCS LCSD LCS MS MSD MS Rec % Blank % RPD % RPD Limits Limits % Parameter % TCMX (Surrogate Rec) 80 90 84 6.9 30 - 150 30 Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

SDG I.D.: GBD12627

January 03, 2013

Thursday, January 03, 2013 Requested Criteria: None **Sample Criteria Exceedences Report** 

**GBD12627 - GZA-PCB** 

State: CT

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

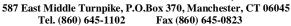
<sup>\*\*\*</sup> No Data to Display \*\*\*

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: 05.0043369.82 COMMERCIAL F Project Number: Laboratory Sample ID(s): BD12627, BD12628, BD12629, BD12630, BD12631, BD12632, BD12633, BD12634, BD12635, BD12636, BD12637, BD12638, BD12639, BD12640, BD12641, BD12642, BD12643, BD12644, BD12645, BD12646, BD12647, BD12648, BD12649, BD12650, BD12651, BD12652, BD12653, BD12654, BD12655, BD12656, BD12657, BD12658 **Sampling Date(s):** 12/24/2012 **RCP Methods Used:** 1311/1312 6010 7000 7196 7470/7471 8081 EPH TO15 **✓** 8082 8270 ETPH 9010/9012 8151 8260 For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? 1a. ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) Were all samples received by the laboratory in a condition consistent with that 2. ✓ Yes No. described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No  $\square$  NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ✓ Yes □ No Were these reporting limits met? 5b. ✓ Yes □ No  $\square$  NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No  $\square$  NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ✓ Yes □ No □ NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Thursday, January 03, 2013 Authorized Printed Name: Greg Lawrence Signature:

Position: Assistant Lab Director







# **RCP Certification Report**

January 03, 2013

**SDG I.D.: GBD12627** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd3 12/28/12-1 (BD12627, BD12628, BD12629, BD12630, BD12631,

BD12632, BD12633, BD12634, BD12635, BD12636, BD12638, BD12641)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/28/2012

**Instrument:** Au-ecd35 12/31/12-1 (BD12637, BD12657, BD12658)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/31/2012

**Instrument:** Au-ecd5 12/28/12-1 (BD12642, BD12643, BD12644, BD12645, BD12651,

BD12652, BD12653, BD12654, BD12655, BD12656)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/28/2012

**Instrument:** Au-ecd6 12/27/12-1 (BD12640)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

January 03, 2013

**SDG I.D.: GBD12627** 

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/27/2012

**Instrument:** Au-ecd6 12/31/12-1 (BD12639)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 12/31/2012

**QC Comments:** QC Batch 16813 12/20/12 (BD12639, BD12640, BD12641)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

**OC Comments:** QC Batch 17200 12/27/12 (BD12642, BD12643, BD12644, BD12645, BD12651,

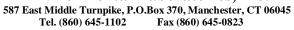
BD12652, BD12653, BD12654, BD12655, BD12656, BD12657, BD12658)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

**QC** Comments: QC Batch 17139 12/26/12 (BD12627, BD12628, BD12629, BD12630, BD12631,

BD12632, BD12633, BD12634, BD12635, BD12636, BD12637, BD12638)







# **RCP** Certification Report

**January 03, 2013** 

**SDG I.D.: GBD12627** 

QC (Site Specific)
Sample No: BD12627, QA/QC Batch: 217139
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Sample No: BD12642, QA/QC Batch: 217200
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria. <b>QC (Batch Specific)</b> Sample No: BD11577, QA/QC Batch: 216813
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All Des recoveres were within 40 - 140 with the following exceptions. Notice
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

# **Temperature Narration**

The samples in this delivery group were received at  $6^{\circ}$ C. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

Cooker: Yes Cooker: October No. Cooker: Mark Cooker No. Cooker: Mark Cooker: No. Cooker: N	°C Pg / of <b>3</b>	- Cg 24 cm		81.0786 1910			(4000) 1 (5)	And Ander	TO STATE OF THE PROPERTY OF TH													Data Format	Excel	K PDF GIS/Key	☐ EQuIS	Data Package	Tier II Checklist  Full Data Package*	Phoenix Std Report Other	* SURCHARGE APPLIES
Code	Ten	Data Delivery:    Fax #	1 Project P.O:	Phone #:			CRI		\$ 5 0 7 14 0 10 10 10 10 10 10 10 10 10 10 10 10 1							The Bridge						MA	MCP Certification	GW-1 GW-2			8-3 	☐ MWRA eSMART ☐ Other	octed:
			Congress ( Trans	.I					ON TOO										-					SW Protection	GA Mobility	GB Mobility	Residential DEC	Other	State where samples were collected:
	<b>CHAIN OF CUSTODY RECORD</b>	587 East Middle Turnpike, Manchester, CT 06040 mail: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726	024 3369. YZ	サルサー	624	1/7	MASS.															Time: RI	/女め □ Direct Exposure (Residential)		16/5 Other				
	CHAIN OF CU	587 East Middle Turnpike, M Email: info@phoenixlabs.com Client Services (8	Project:	Report to:	Invoice to:		Analysis Request	Antique.	D.	$\leftarrow$	X	. >	X	×	×	×	Α,	<b>X</b>	<u> </u>	<b>X</b>	<u>×</u>	Date: Tir	1 4/rde1	1 2/19/12	cilgeel	Turnaround:	1 Day*	3 Days*	Other * SURCHARGE APPLIES
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		ories, Inc.		Rush	bus CT	Client Sample - Information - Identification	3	Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	ample Sample ion Matrix	1. K.	1.5-2.73	2.75.20	5-275	25-23	(5:56.2	1.5-2.75)	.5-1.75)	2.75.50	2.75:30)	V (3€5-2.	Por O	Accepted by:	ならのかが			Regulations:	THE WIS FOR		
		DENIX FINIX	の名は	(カイング)	G-kshall	Client Sample - In		/ater GW=Ground Wa	Customer Sample Identification	AM-5-3(15-	1 4M-S-4 (2	44-5-5C	AH-5-6(2.5-275	A14-5-7(2	A17-5-8 (2	57	1)0/-5-112	AM-5-111 (2	A14-5-12(	- AMS-13(3	Orcupe lang f		Chi	Confred 1		Comments, Special Requirements or Regulations:	16 to 16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
	1	PHOE  Environmental	Customer:	Address:			Signature	Matrix Code: DW=Drinking WSE=Sediment	PHOENIX USE ONLY SAMPLE#	F60/21	8601C1	SCOR	0500	12631	68010	12633	12/05/	12655	12/2/5/	12051	DWX	Relinquished	A L	CONTENIOR		Comments, Spe	- 10 + 24 · 14 · 14 · 14 · 14 · 14 · 14 · 14 ·		

Cooler: Nes No	10°CPg 2013	L. 0020.00			5 LC 2868700	140	7001/100 OSCHI!!		to de l'ingle de l'ing													Data Format	Excel	GIS/Key	EQuIS	Data Package Tier II Checklist	Full Data Package*	☐ Phoenix Std Report ☐ Other	* SURCHARGE APPLIES
Coolad	Temp	Data Delivery:    Fax #	,	O.	Fax #:		Oct.		\$ 5 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		1	_	-				_					MCP Certification	GW-1	Gw-2	☐ GW-3	S-1 S-2		☐ MWRA eSMART ☐ Other	cted:
			<u> </u>	ereil Founday					\$05.10S									. :				CI V	-		GA Mobility	GB Mobility	I/C DEC	Other	State where samples were collected:
	ODY RECORD	anchester, CT 06040 Fax (860) 645-0823 50) 645-8726		.82 Commercial																		RI Direct Exposure		w <sub>0</sub>	Other				State where
	<b>CHAIN OF CUSTODY RECORD</b>	587 East Middle Turnpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-08; Client Services (860) 645-8726		Project: 43364.32	Report to:	Analysis	10	Ry To	10 X 10 X	×	×	X	×	X	X	X	X,	X	Х.	<b>X</b>	×		2027 -1/20	9:11 21/2/2	2011 Clare	Turnaround:	2 Days*	3 Days*	
	H	587 Email:					Date:/2/24/12	-Waste Water ther	te Time	*	C 840	/828/	1020	1015	010/	2560	lom,	1045	1040	1025	1030					<u> </u>			
			Inc.		CT 06033	n - Identification	Date	Surface Water ww=Was W=Wipe O=Other	Sample Date Matrix Sampled	3										,	> >	:X:	1	X		ions:			
		X	aboratories,	4	- (4) him bound	Client Sample - Information - Identification		Ground Water <b>SW</b> =9	Customer Sample Identification	Ce: 1- 1	- Ce:1-1	-(2:1-)	-(4:1-2	(4:1-3	-Ce:1-4	(c:1-5/	1	61-	ا ا	tal - 9	-(4:1-10	Accepted by	CC	Ø		equirements or Regulations:		eson hold	
		HOH	Environmental Laboratories,	Customer:	Address: (5)		ture ture	Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water ww=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	PHOENIX USE ONLY SAMPLE #	639 A4-	OYO AN-	04/ A10-	oys A10	1043 A10-	044 A10-	045 A11	046 1410-1	07 + 1910	10 / HIO-	7	BSC 1410-	Relinquished by:	しかがし	大下海		Special (	\	* Frete Surprison hold	•
		7	En	ರ ≤	∢	Sampler's	Signature	Matri DW= SE=S	PHOEN	0	Þ	4	9	4	4	Y	2	4	70,	4	ल	Relin	P	Ů		Comments O CACO	,	*	

\* SURCHARGE APPLIES Phoenix Std Report Z N Email: James. hutter OG zu. Cor Tier II Checklist Full Data Package\* 860 286 8900 Data Package Data Format

K Excel

PDF

GIS/Key EQuIS Other Other Coolant /IDK ☐ MWRA eSMART
☐ Other Project P.O: Phone #: Fax #: ☐ GW-3 ☐ GW-1 ☐ GW-2 Data Delivery: □ S-1-S-2 State where samples were collected: Residential DEC GW Protection SW Protection GB Mobility ☐ GA Mobility RI Direct Exposure ☐ I/C DEC Other 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 (Residential) **CHAIN OF CUSTODY RECORD** Other ₩ G Project: 433,432 20/1/ \* SURCHARGE APPLIES Time: Report to: Invoice to: 3 Days\*
X Standard
Other Turnaround:
1 Day\*
2 Days\* Analysis Request 12/2/1/18 400C D 2965 Sampled 0160 0918 Date: /2/24//2 BB Time 0915 0)/ 12/24/12/100 138 Matrix Code:

DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other Date Sampled Client Sample - Information - Identification 01103 Detection Limit less than a sport Sample Matrix 3 Environmental Laboratories, Inc. Comments, Special Requirements or Regulations: Accepted by 626 1 カーバン Customer Sample Floster band A16-(2:1-13 A10- (2:1-12 A10-(2:1-11 412 -( 712-1 PHOENIX USE ONLY Customer: Address: Relinquished SAMPLE Sampler's Signature

#### Bobbi - Phoenixlabs

From: James Hutton [james.hutton@gza.com]

Sent: Friday, December 28, 2012 10:24 AM

To: Greg - Phoenixlabs; Bobbi - Phoenixlabs

Subject: FW: Phoenix Labs - GBD12627, 05.0043369.82 COMMERCIAL FOUNDRY - COC

Acknowledgement

Attachments: Sample Acknowledgement.pdf

Greg and Bobbi,

The samples noted below that begin with "AM" were misread on the chain.

They should start with A14.

Also, can you expedite 24hr TAT the following samples for PCBs Manual Soxhlet?

A14-S-3(1.5-1.75)

A14-S-4(2.5-2.75)

A14-S-5(2.75-3.0)

Please let me know when these results could be provided at soonest.

Thanks

Jim Hutton

**From:** clientservices@phoenixlabs.com [mailto:clientservices@phoenixlabs.com]

Sent: Thursday, December 27, 2012 9:16 AM

To: James Hutton

Subject: Phoenix Labs - GBD12627, 05.0043369.82 COMMERCIAL FOUNDRY - COC Acknowledgement

James,

Delivery group GBD12627 (05.0043369.82 COMMERCIAL FOUNDRY ) has been logged in for the following samples:

Phoenix Id	Client Id
BD12627	AM-S-3 (1.5-1.75 FT)
BD12628	AM-S-4 (2.5-2.75 FT)
BD12629	AM-S-5 (2.75-3.0 FT)
BD12630	AM-S-6 (2.5-2.75 FT)
BD12631	AM-S-7 (2.5-2.75 FT)
BD12632	AM-S-8 (2.75-3 FT)
BD12633	AM-S-9 (2.5-2.75 FT)
BD12634	AM-S-10 (1.5-1.75 FT)
BD12635	AM-S-11 (2.75-3.0 FT)
BD12636	AM-S-12 (2.75-3.0 FT)
BD12637	AM-S-13 (3.5-3.75 FT)
BD12638	ORANGEBORING PIPE
BD12639	A4-CEIL-I



Thursday, January 03, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Sample ID#s: BD12660, BD12663 - BD12673, BD12675, BD12678 - BD12679,

BD12681 - BD12682, BD12684 - BD12686

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301

CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007

ME Lab Registration #CT-007

INE Lab Registration #01-001

NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530

**RI Lab Registration #63** 

VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time SOIL Collected by: 12/22/12 8:50 Matrix: **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

\_aboratory Data

SDG ID: GBD12659

Phoenix ID: BD12660

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A4-S-2 (0-2 FT)

RL/ **PQL** Parameter Result Units Date/Time Βv Reference E160.3 90 Percent Solid % 12/26/12 jΙ Extraction of CT ETPH Completed 12/26/12 BJ/V 3545 Extraction for PCB Completed 12/27/12 BQ/K/E SW3540C TPH by GC (Extractable Products) Ext. Petroleum HC 11 mg/Kg 12/28/12 CT ETPH/8015 CT ETPH/8015 12/28/12 KCA Identification mg/Kg **QA/QC Surrogates** % n-Pentacosane 12/28/12 KCA 50 - 150 % 86 % PCB (Soxhlet) PCB-1016 ND 0.36 12/28/12 AW 3540C/8082 mg/kg PCB-1221 ND 0.36 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1232 3540C/8082 ND 0.36 12/28/12 ΑW mg/kg PCB-1242 ND 0.36 mg/kg 12/28/12 AW 3540C/8082 ND 0.36 12/28/12 AW 3540C/8082 PCB-1248 mg/kg ND 0.36 12/28/12 AW 3540C/8082 PCB-1254 mg/kg PCB-1260 ND 0.36 mg/kg 12/28/12 ΑW 3540C/8082 ND 0.36 12/28/12 ΑW 3540C/8082 PCB-1262 mg/kg 3540C/8082 PCB-1268 ND 0.36 mg/kg 12/28/12 ΑW **QA/QC Surrogates** % DCBP 95 % 12/28/12 AW 30 - 150 % % TCMX 95 % 12/28/12 ΑW 30 - 150 %

> Page 1 of 31 Ver 1

Client ID: A4-S-2 (0-2 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

## **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12660

Page 2 of 31 Ver 1

<sup>\*\*</sup>Petroleum hydrocarbon chromatogram contains individual discrete hydrocarbon peaks in the range of C18 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time SOIL Collected by: 12/22/12 Matrix: 9:15 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

\_aboratory Data

SDG ID: GBD12659

Phoenix ID: BD12663

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A4-S-5 (0-2 FT)

RL/ **PQL** Parameter Result Units Date/Time Βv Reference E160.3 Percent Solid 86 % 12/26/12 jΙ Extraction of CT ETPH Completed 12/26/12 BJ/V 3545 Extraction for PCB Completed 12/27/12 BQ/K/E SW3540C TPH by GC (Extractable Products) Ext. Petroleum HC ND 12 mg/Kg 12/28/12 CT ETPH/8015 CT ETPH/8015 ND 12/28/12 KCA Identification mg/Kg **QA/QC Surrogates** % n-Pentacosane 12/28/12 KCA 50 - 150 % 96 % PCB (Soxhlet) PCB-1016 ND 0.38 12/28/12 AW 3540C/8082 mg/kg PCB-1221 ND 0.38 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1232 3540C/8082 ND 0.38 12/28/12 ΑW mg/kg PCB-1242 ND 0.38 mg/kg 12/28/12 AW 3540C/8082 ND 0.38 12/28/12 AW 3540C/8082 PCB-1248 mg/kg ND 0.38 12/28/12 AW 3540C/8082 PCB-1254 mg/kg PCB-1260 ND 0.38 mg/kg 12/28/12 ΑW 3540C/8082 ND 0.38 12/28/12 ΑW 3540C/8082 PCB-1262 mg/kg 3540C/8082 PCB-1268 ND 0.38 mg/kg 12/28/12 ΑW **QA/QC Surrogates** % DCBP 110 % 12/28/12 AW 30 - 150 % % TCMX 110 % 12/28/12 ΑW 30 - 150 %

> Page 3 of 31 Ver 1

Client ID: A4-S-5 (0-2 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

## **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12663

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time SOIL Collected by: 12/22/12 Matrix: 9:20 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

\_aboratory Data

SDG ID: GBD12659

Phoenix ID: BD12664

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A4-S-6 (0-2 FT)

RL/ **PQL** Parameter Result Units Date/Time Βv Reference E160.3 Percent Solid 91 % 12/26/12 jΙ Extraction of CT ETPH Completed 12/26/12 BJ/V 3545 Extraction for PCB Completed 12/27/12 BQ/K/E SW3540C TPH by GC (Extractable Products) Ext. Petroleum HC 11 mg/Kg 12/28/12 CT ETPH/8015 CT ETPH/8015 12/28/12 KCA Identification mg/Kg **QA/QC Surrogates** % n-Pentacosane 12/28/12 KCA 50 - 150 % 101 % PCB (Soxhlet) PCB-1016 ND 0.36 12/28/12 AW 3540C/8082 mg/kg PCB-1221 ND 0.36 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1232 3540C/8082 ND 0.36 12/28/12 ΑW mg/kg PCB-1242 ND 0.36 mg/kg 12/28/12 AW 3540C/8082 ND 0.36 12/28/12 AW 3540C/8082 PCB-1248 mg/kg ND 0.36 12/28/12 AW 3540C/8082 PCB-1254 mg/kg PCB-1260 ND 0.36 mg/kg 12/28/12 ΑW 3540C/8082 ND 0.36 12/28/12 ΑW 3540C/8082 PCB-1262 mg/kg 3540C/8082 PCB-1268 ND 0.36 mg/kg 12/28/12 ΑW **QA/QC Surrogates** % DCBP 116 % 12/28/12 AW 30 - 150 % % TCMX 110 % 12/28/12 ΑW 30 - 150 %

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Client ID: A4-S-6 (0-2 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

## **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12664

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<sup>\*\*</sup>Petroleum hydrocarbon chromatogram contains individual discrete hydrocarbon peaks in the range of C20 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/22/12 9:40 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD12659

Phoenix ID: BD12665

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A3-S-1 (0-2 FT)

RL/

Parameter	Result	PQL	Units	Date/Time	Ву	Reference			
Percent Solid	94		%	12/26/12	jl	E160.3			
Extraction of CT ETPH	Completed			12/26/12	BJ/V	3545			
TPH by GC (Extractable Products)									
Ext. Petroleum HC	ND	10	mg/Kg	12/28/12	KCA	CT ETPH/8015			
Identification	ND		mg/Kg	12/28/12	KCA	CT ETPH/8015			
QA/QC Surrogates									
% n-Pentacosane	66		%	12/28/12	KCA	50 - 150 %			

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/22/12 9:50 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

rtaon rtoquoot.

P.O.#:

**Laboratory Data** 

SDG ID: GBD12659

Phoenix ID: BD12666

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A3-S-2 (0-2 FT)

RL/

Parameter	Result	PQL	Units	Date/Time	Ву	Reference			
Percent Solid	96		%	12/26/12	jl	E160.3			
Extraction of CT ETPH	Completed			12/26/12	BJ/V	3545			
TPH by GC (Extractable Products)									
Ext. Petroleum HC	ND	10	mg/Kg	12/28/12	KCA	CT ETPH/8015			
Identification	ND		mg/Kg	12/28/12	KCA	CT ETPH/8015			
QA/QC Surrogates									
% n-Pentacosane	88		%	12/28/12	KCA	50 - 150 %			

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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January 03, 2013

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/22/12 10:00 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Standard Analyzed by: see "By" below

Rush Request:

P.O.#:

\_aboratory Data

SDG ID: GBD12659

Phoenix ID: BD12667

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A3-S-3 (0-2 FT)

RI/

Parameter	Result	PQL	Units	Date/Time	Ву	Reference			
Percent Solid	95		%	12/26/12	jl	E160.3			
Extraction of CT ETPH	Completed			12/26/12	BJ/V	3545			
TPH by GC (Extractable Products)									
Ext. Petroleum HC	ND	10	mg/Kg	12/28/12	KCA	CT ETPH/8015			
Identification	ND		mg/Kg	12/28/12	KCA	CT ETPH/8015			
QA/QC Surrogates									
% n-Pentacosane	58		%	12/28/12	KCA	50 - 150 %			

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOIL Collected by: 12/22/12 10:05 Location Code: **GZA-PCB** Received by: SW 12/26/12 16:15 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

SDG ID: GBD12659 **Laboratory Data** 

Phoenix ID: BD12668

05.0043369.82 COMMERCIAL FOUNDRY Project ID:

Client ID: A3-S-4 (0-2 FT)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	93		%	12/26/12	jl	E160.3
Soil Extraction SVOA BN	Completed			12/26/12	BJ/V	SW3545
Extraction of CT ETPH	Completed			12/26/12	BJ/V	3545
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
TPH by GC (Extractable	Products)					
Ext. Petroleum HC	6200	210	mg/Kg	12/29/12	JRB	CT ETPH/8015
Identification	**		mg/Kg	12/29/12	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	Diluted Out		%	12/29/12	JRB	50 - 150 %
PCB (Soxhlet)						
PCB-1016	ND	0.36	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.36	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.36	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.36	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	ND	0.36	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	ND	0.36	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.36	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.36	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.36	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	112		%	12/31/12	AW	30 - 150 %
% TCMX	86		%	12/31/12	AW	30 - 150 %
Polynuclear Aromatic HO	<u> </u>					
2-Methylnaphthalene	_ ND	250	ug/Kg	12/27/12	DD	SW 8270
Acenaphthene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Acenaphthylene	ND	250	ug/Kg	12/27/12	DD	SW 8270

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Client ID: A3-S-4 (0-2 FT)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Anthracene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Benz(a)anthracene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Benzo(a)pyrene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Benzo(b)fluoranthene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Benzo(ghi)perylene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Benzo(k)fluoranthene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Chrysene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Dibenz(a,h)anthracene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Fluoranthene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Fluorene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Naphthalene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Phenanthrene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Pyrene	ND	250	ug/Kg	12/27/12	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	81		%	12/27/12	DD	30 - 130 %
% Nitrobenzene-d5	81		%	12/27/12	DD	30 - 130 %
% Terphenyl-d14	33		%	12/27/12	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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January 03, 2013

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Phoenix I.D.: BD12668

<sup>\*\*</sup>Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/22/12 10:20 Received by: Location Code: **GZA-PCB** SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD12659

Phoenix ID: BD12669

05.0043369.82 COMMERCIAL FOUNDRY Project ID:

Client ID: A3-S-4 (2-4 FT)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	94		%	12/26/12	jl	E160.3
Soil Extraction SVOA BN	Completed			12/26/12	BJ/V	SW3545
Extraction of CT ETPH	Completed			12/26/12	BJ/V	3545
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
TPH by GC (Extractable I	Products)					
Ext. Petroleum HC	4700	210	mg/Kg	12/29/12	JRB	CT ETPH/8015
Identification	**		mg/Kg	12/29/12	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	Diluted Out		%	12/29/12	JRB	50 - 150 %
PCB (Soxhlet)						
PCB-1016	ND	0.35	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.35	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.35	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.35	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	ND	0.35	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	ND	0.35	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.35	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.35	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.35	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	109		%	12/31/12	AW	30 - 150 %
% TCMX	89		%	12/31/12	AW	30 - 150 %
Polynuclear Aromatic HC	2					
2-Methylnaphthalene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Acenaphthene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Acenaphthylene	ND	250	ug/Kg	12/27/12	DD	SW 8270

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Client ID: A3-S-4 (2-4 FT)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Anthracene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Benz(a)anthracene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Benzo(a)pyrene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Benzo(b)fluoranthene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Benzo(ghi)perylene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Benzo(k)fluoranthene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Chrysene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Dibenz(a,h)anthracene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Fluoranthene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Fluorene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Naphthalene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Phenanthrene	ND	250	ug/Kg	12/27/12	DD	SW 8270
Pyrene	ND	250	ug/Kg	12/27/12	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	83		%	12/27/12	DD	30 - 130 %
% Nitrobenzene-d5	83		%	12/27/12	DD	30 - 130 %
% Terphenyl-d14	42		%	12/27/12	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Phoenix I.D.: BD12669

<sup>\*\*</sup>Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/22/12 10:15 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD12659

Phoenix ID: BD12670

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A3-S-5 (0-2 FT)

RL/

Parameter	Result	PQL	Units	Date/Time	Ву	Reference			
Percent Solid	96		%	12/26/12	jl	E160.3			
Extraction of CT ETPH	Completed			12/26/12	BJ/V	3545			
TPH by GC (Extractable Products)									
Ext. Petroleum HC	ND	10	mg/Kg	12/28/12	KCA	CT ETPH/8015			
Identification	ND		mg/Kg	12/28/12	KCA	CT ETPH/8015			
QA/QC Surrogates									
% n-Pentacosane	86		%	12/28/12	KCA	50 - 150 %			

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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January 03, 2013

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date SOIL Collected by: 12/22/12 10:25 Matrix: **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

\_aboratory Data

SDG ID: GBD12659

Phoenix ID: BD12671

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A3-S-6 (0-2 FT)

RL/ **PQL** Parameter Result Units Date/Time Βv Reference E160.3 94 Percent Solid % 12/26/12 jΙ Extraction of CT ETPH Completed 12/26/12 BJ/V 3545 Extraction for PCB Completed 12/27/12 BQ/K/E SW3540C TPH by GC (Extractable Products) Ext. Petroleum HC ND 11 mg/Kg 12/28/12 CT ETPH/8015 CT ETPH/8015 ND 12/28/12 KCA Identification mg/Kg **QA/QC Surrogates** % n-Pentacosane 12/28/12 KCA 50 - 150 % 64 % PCB (Soxhlet) PCB-1016 ND 0.35 12/31/12 AW 3540C/8082 mg/kg PCB-1221 ND 0.35 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1232 12/31/12 3540C/8082 ND 0.35 AW mg/kg PCB-1242 ND 0.35 mg/kg 12/31/12 AW 3540C/8082 ND 0.35 12/31/12 AW 3540C/8082 PCB-1248 mg/kg ND 0.35 12/31/12 AW 3540C/8082 PCB-1254 mg/kg PCB-1260 ND 0.35 mg/kg 12/31/12 AW 3540C/8082 ND 0.35 12/31/12 ΑW 3540C/8082 PCB-1262 mg/kg 3540C/8082 PCB-1268 ND 0.35 mg/kg 12/31/12 AW **QA/QC Surrogates** % DCBP 98 % 12/31/12 AW 30 - 150 % % TCMX 90 % 12/31/12 AW 30 - 150 %

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Client ID: A3-S-6 (0-2 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

## **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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January 03, 2013

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Phoenix I.D.: BD12671

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date SOIL Collected by: 12/22/12 10:30 Matrix: **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

\_aboratory Data

SDG ID: GBD12659

Phoenix ID: BD12672

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A3-S-6 (2-4 FT)

RL/ **PQL** Parameter Result Units Date/Time Βv Reference E160.3 94 Percent Solid % 12/26/12 jΙ Extraction of CT ETPH Completed 12/26/12 BJ/V 3545 Extraction for PCB Completed 12/27/12 BQ/K/E SW3540C TPH by GC (Extractable Products) Ext. Petroleum HC ND 10 mg/Kg 12/28/12 CT ETPH/8015 CT ETPH/8015 ND 12/28/12 KCA Identification mg/Kg **QA/QC Surrogates** % n-Pentacosane 12/28/12 KCA 50 - 150 % 96 % PCB (Soxhlet) PCB-1016 ND 0.35 12/28/12 AW 3540C/8082 mg/kg PCB-1221 ND 0.35 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1232 3540C/8082 ND 0.35 12/28/12 AW mg/kg PCB-1242 ND 0.35 mg/kg 12/28/12 AW 3540C/8082 ND 0.35 12/28/12 AW 3540C/8082 PCB-1248 mg/kg ND 0.35 12/28/12 AW 3540C/8082 PCB-1254 mg/kg PCB-1260 ND 0.35 mg/kg 12/28/12 ΑW 3540C/8082 ND 0.35 12/28/12 ΑW 3540C/8082 PCB-1262 mg/kg 3540C/8082 PCB-1268 ND 0.35 mg/kg 12/28/12 ΑW **QA/QC Surrogates** % DCBP 102 % 12/28/12 AW 30 - 150 % % TCMX 89 % 12/28/12 ΑW 30 - 150 %

> Page 17 of 31 Ver 1

Client ID: A3-S-6 (2-4 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

## **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12672

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOIL Collected by: 12/22/12 10:50 Received by: Location Code: **GZA-PCB** SW 12/26/12 16:15

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

\_aboratory Data

SDG ID: GBD12659

Phoenix ID: BD12673

05.0043369.82 COMMERCIAL FOUNDRY Project ID:

Client ID: A3-S-7 (0-2 FT)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	95		%	12/26/12	jl	E160.3
Field Extraction	Completed			12/22/12		SW5035
Wolatilaa						
<u>Volatiles</u>						
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,1,1-Trichloroethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	12/27/12	R/P	SW8260
1,1,2-Trichloroethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,1-Dichloroethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,1-Dichloroethene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,1-Dichloropropene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,2,3-Trichloropropane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,2-Dibromo-3-chloropropane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,2-Dibromoethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,2-Dichlorobenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,2-Dichloroethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,2-Dichloropropane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,3-Dichlorobenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,3-Dichloropropane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
1,4-Dichlorobenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
2,2-Dichloropropane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
2-Chlorotoluene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
2-Hexanone	ND	25	ug/Kg	12/27/12	R/P	SW8260
2-Isopropyltoluene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
4-Chlorotoluene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260

Page 19 of 31 Ver 1 Client ID: A3-S-7 (0-2 FT)

Client ID. A3-3-7 (0-2 F1)		D1 /				
Parameter	Result	RL/ PQL	Units	Date/Time	Ву	Reference
4-Methyl-2-pentanone	ND	25	ug/Kg	12/27/12	R/P	SW8260
Acetone	ND	100	ug/Kg	12/27/12	R/P	SW8260
Acrylonitrile	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Benzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Bromobenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Bromochloromethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Bromodichloromethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Bromoform	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Bromomethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Carbon Disulfide	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Carbon tetrachloride	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Chlorobenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Chloroethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Chloroform	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Chloromethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Dibromochloromethane	ND	3.0	ug/Kg	12/27/12	R/P	SW8260
Dibromomethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Dichlorodifluoromethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Ethylbenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Hexachlorobutadiene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Isopropylbenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
m&p-Xylene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Methyl Ethyl Ketone	ND	30	ug/Kg	12/27/12	R/P	SW8260
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	12/27/12	R/P	SW8260
Methylene chloride	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Naphthalene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
n-Butylbenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
n-Propylbenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
o-Xylene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
p-Isopropyltoluene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
sec-Butylbenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Styrene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
tert-Butylbenzene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Tetrachloroethene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Tetrahydrofuran (THF)	ND	10	ug/Kg	12/27/12	R/P	SW8260
Toluene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Total Xylenes	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	12/27/12	R/P	SW8260
Trichloroethene	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Trichlorofluoromethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Trichlorotrifluoroethane	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
Vinyl chloride	ND	5.1	ug/Kg	12/27/12	R/P	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	99		%	12/27/12	R/P	70 - 130 %
% Bromofluorobenzene	104		%	12/27/12	R/P	70 - 130 %
% Dibromofluoromethane	96		%	12/27/12	R/P	70 - 130 %

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Phoenix I.D.: BD12673

Client ID: A3-S-7 (0-2 FT)

Parameter	Result	RL/ PQL	Units	Date/Time	Ву	Reference
% Toluene-d8	99		%	12/27/12	R/P	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12673

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/22/12 11:12 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD12659

Phoenix ID: BD12675

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A3-S-9 (0-6 IN)

RL/

Parameter	Result	PQL	Units	Date/Time	Ву	Reference			
Percent Solid	94		%	12/26/12	jl	E160.3			
Extraction of CT ETPH	Completed			12/26/12	BJ/V	3545			
TPH by GC (Extractable Products)									
Ext. Petroleum HC	ND	10	mg/Kg	12/28/12	KCA	CT ETPH/8015			
Identification	ND		mg/Kg	12/28/12	KCA	CT ETPH/8015			
QA/QC Surrogates									
% n-Pentacosane	109		%	12/28/12	KCA	50 - 150 %			

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/22/12 11:29 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

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P.O.#:

**Laboratory Data** 

SDG ID: GBD12659

Phoenix ID: BD12678

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A3-S-12 (0-6 IN)

RL/

Parameter	Result	PQL	Units	Date/Time	Ву	Reference				
Percent Solid	92		%	12/26/12	jl	E160.3				
Extraction of CT ETPH	Completed			12/26/12	BJ/V	3545				
TPH by GC (Extractable Products)										
Ext. Petroleum HC	ND	10	mg/Kg	12/28/12	KCA	CT ETPH/8015				
Identification	ND		mg/Kg	12/28/12	KCA	CT ETPH/8015				
QA/QC Surrogates										
% n-Pentacosane	75		%	12/28/12	KCA	50 - 150 %				

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/22/12 11:35 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD12659

Phoenix ID: BD12679

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A3-S-13 (0-6 IN)

RL/

Parameter	Result	PQL	Units	Date/Time	Ву	Reference					
Percent Solid	92		%	12/26/12	jl	E160.3					
Extraction of CT ETPH	Completed			12/26/12	BJ/V	3545					
TPH by GC (Extractable Products)											
Ext. Petroleum HC	ND	11	mg/Kg	12/28/12	KCA	CT ETPH/8015					
Identification	ND		mg/Kg	12/28/12	KCA	CT ETPH/8015					
QA/QC Surrogates											
% n-Pentacosane	77		%	12/28/12	KCA	50 - 150 %					

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/22/12 13:30 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD12659

Phoenix ID: BD12681

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A1-S-2 (0-6 IN)

RL/

Parameter	Result	PQL	Units	Date/Time	Ву	Reference				
Percent Solid	91		%	12/26/12	jl	E160.3				
Extraction of CT ETPH	Completed			12/26/12	BJ/V	3545				
TPH by GC (Extractable Products)										
Ext. Petroleum HC	ND	11	mg/Kg	12/28/12	KCA	CT ETPH/8015				
Identification	ND		mg/Kg	12/28/12	KCA	CT ETPH/8015				
QA/QC Surrogates										
% n-Pentacosane	60		%	12/28/12	KCA	50 - 150 %				

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/22/12 13:40 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD12659

Phoenix ID: BD12682

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A1-S-3 (0-6 IN)

RL/

Parameter	Result	PQL	Units	Date/Time	Ву	Reference					
Percent Solid	88		%	12/26/12	jl	E160.3					
Extraction of CT ETPH	Completed			12/26/12	BJ/V	3545					
TPH by GC (Extractable Products)											
Ext. Petroleum HC	ND	11	mg/Kg	12/28/12	KCA	CT ETPH/8015					
Identification	ND		mg/Kg	12/28/12	KCA	CT ETPH/8015					
QA/QC Surrogates											
% n-Pentacosane	68		%	12/28/12	KCA	50 - 150 %					

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/22/12 14:15 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD12659

Phoenix ID: BD12684

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A1-S-5 (0-6 IN)

RL/

Parameter	Result	PQL	Units	Date/Time	Ву	Reference				
Percent Solid	90		%	12/26/12	jl	E160.3				
Extraction of CT ETPH	Completed			12/26/12	BJ/V	3545				
TPH by GC (Extractable Products)										
Ext. Petroleum HC	ND	11	mg/Kg	12/28/12	KCA	CT ETPH/8015				
Identification	ND		mg/Kg	12/28/12	KCA	CT ETPH/8015				
QA/QC Surrogates										
% n-Pentacosane	80		%	12/28/12	KCA	50 - 150 %				

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

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January 03, 2013

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/22/12 13:35 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Rush Request: 24 Hour Analyzed by: see "By" below

rtaon rtoquott.

P.O.#:

Laboratory Data

SDG ID: GBD12659

Phoenix ID: BD12685

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A14-S-1 (2.5-2.75 FT)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid % E160.3 86 12/26/12 jΙ BQ/K/E SW3540C Extraction for PCB Completed 12/26/12 PCB (Soxhlet) PCB-1016 ND 0.38 mg/kg 12/27/12 ΑW 3540C/8082 PCB-1221 ND 0.38 mg/kg 12/27/12 AW 3540C/8082 ND 12/27/12 ΑW 3540C/8082 PCB-1232 0.38 mg/kg ND 12/27/12 ΑW 3540C/8082 PCB-1242 0.38 mg/kg 12/27/12 AW 3540C/8082 PCB-1248 0.38 mg/kg 3540C/8082 PCB-1254 ND 0.38 mg/kg 12/27/12 AW 3540C/8082 PCB-1260 ND 0.38 12/27/12 ΑW mg/kg PCB-1262 ND 0.38 mg/kg 12/27/12 ΑW 3540C/8082 PCB-1268 ND 12/27/12 ΑW 3540C/8082 0.38 mg/kg 3540C/8082 0.38 12/27/12 AW Total PCBs 0.9 mg/kg **QA/QC Surrogates** % DCBP 78 % 12/27/12 AW 30 - 150 % 79 12/27/12 ΑW 30 - 150 % % TCMX %

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Client ID: A14-S-1 (2.5-2.75 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

## **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12685

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/22/12 13:40 **GZA-PCB** Received by: Location Code: SW 12/26/12 16:15 Analyzed by: see "By" below

Rush Request: 24 Hour

P.O.#:

Laboratory Data

SDG ID: GBD12659

Phoenix ID: BD12686

Project ID: 05.0043369.82 COMMERCIAL FOUNDRY

Client ID: A14-S-2 (2.5-2.75 FT)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 84 % E160.3 12/26/12 jΙ Extraction for PCB BQ/K/E SW3540C Completed 12/26/12 PCB (Soxhlet) PCB-1016 ND 0.39 mg/kg 12/27/12 ΑW 3540C/8082 PCB-1221 ND 0.39 mg/kg 12/27/12 AW 3540C/8082 ND 12/27/12 ΑW 3540C/8082 PCB-1232 0.39 mg/kg ND 12/27/12 ΑW 3540C/8082 PCB-1242 0.39 mg/kg ND 12/27/12 AW 3540C/8082 PCB-1248 0.39 mg/kg 3540C/8082 PCB-1254 ND 0.39 mg/kg 12/27/12 AW 12/27/12 3540C/8082 PCB-1260 ND 0.39 ΑW mg/kg PCB-1262 ND 0.39 mg/kg 12/27/12 ΑW 3540C/8082 ND 12/27/12 ΑW 3540C/8082 PCB-1268 0.39 mg/kg **QA/QC Surrogates** % DCBP 91 % 12/27/12 AW 30 - 150 % 82 % 12/27/12 30 - 150 % % TCMX

> Page 30 of 31 Ver 1

Client ID: A14-S-2 (2.5-2.75 FT)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

## **Comments:**

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12686

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

# OA/OC Data

January 03, 2013	QA/QC Data				SDG I.D.: GBD12659						
Parameter	Blank		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 217244, QC Sample	No: BD12006 (BD1:	2673)									
Volatiles - Soil	•	,									
1,1,1,2-Tetrachloroethane	ND		108	104	3.8	100	94	6.2	70 - 130	30	
1,1,1-Trichloroethane	ND		105	104	1.0	104	95	9.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND		96	95	1.0	94	99	5.2	70 - 130	30	
1,1,2-Trichloroethane	ND		107	105	1.9	100	101	1.0	70 - 130	30	
1,1-Dichloroethane	ND		105	103	1.9	98	92	6.3	70 - 130	30	
1,1-Dichloroethene	ND		101	98	3.0	90	81	10.5	70 - 130	30	
1,1-Dichloropropene	ND		104	101	2.9	104	93	11.2	70 - 130	30	
1,2,3-Trichlorobenzene	ND		103	100	3.0	101	103	2.0	70 - 130	30	
1,2,3-Trichloropropane	ND		106	104	1.9	95	101	6.1	70 - 130	30	
1,2,4-Trichlorobenzene	ND		98	97	1.0	97	99	2.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND		107	104	2.8	101	97	4.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND		105	105	0.0	96	101	5.1	70 - 130	30	
1,2-Dibromoethane	ND		104	102	1.9	104	104	0.0	70 - 130	30	
1,2-Dichlorobenzene	ND		104	102	1.9	99	98	1.0	70 - 130	30	
1,2-Dichloroethane	ND		104	101	2.9	111	110	0.9	70 - 130	30	
1,2-Dichloropropane	ND		105	102	2.9	97	93	4.2	70 - 130	30	
1,3,5-Trimethylbenzene	ND		106	102	3.8	103	97	6.0	70 - 130	30	
1,3-Dichlorobenzene	ND		105	102	2.9	98	98	0.0	70 - 130	30	
1,3-Dichloropropane	ND		105	103	1.9	102	103	1.0	70 - 130	30	
1,4-Dichlorobenzene	ND		103	101	2.0	97	96	1.0	70 - 130	30	
2,2-Dichloropropane	ND		104	102	1.9	88	79	10.8	70 - 130	30	
2-Chlorotoluene	ND		108	104	3.8	100	97	3.0	70 - 130	30	
2-Hexanone	ND		102	103	1.0	87	96	9.8	70 - 130	30	
2-Isopropyltoluene	ND		104	101	2.9	102	98	4.0	70 - 130	30	
4-Chlorotoluene	ND		102	98	4.0	98	96	2.1	70 - 130	30	
4-Methyl-2-pentanone	ND		101	103	2.0	86	95	9.9	70 - 130	30	
Acetone	ND		102	102	0.0	56	61	8.5	70 - 130	30	m
Acrylonitrile	ND		97	100	3.0	90	98	8.5	70 - 130	30	
Benzene	ND		104	100	3.9	97	90	7.5	70 - 130	30	
Bromobenzene	ND		105	102	2.9	103	102	1.0	70 - 130	30	
Bromochloromethane	ND		107	103	3.8	99	97	2.0	70 - 130	30	
Bromodichloromethane	ND		109	105	3.7	101	96	5.1	70 - 130	30	
Bromoform	ND		108	109	0.9	86	85	1.2	70 - 130	30	
Bromomethane	ND		101	97	4.0	68	62	9.2	70 - 130	30	m
Carbon Disulfide	ND		97	95	2.1	79	69	13.5	70 - 130	30	m
Carbon tetrachloride	ND		104	100	3.9	95	82	14.7	70 - 130	30	
Chlorobenzene	ND		106	102	3.8	100	95	5.1	70 - 130	30	
Chloroethane	ND		113	110	2.7	49	42	15.4	70 - 130	30	m
Chloroform	ND		106	101	4.8	103	97	6.0	70 - 130	30	
Chloromethane	ND		101	98	3.0	87	77	12.2	70 - 130	30	
cis-1,2-Dichloroethene	ND		106	102	3.8	96	91	5.3	70 - 130	30	

	SDG	LD.:	GBD1265	9
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Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	106	104	1.9	92	88	4.4	70 - 130	30	
Dibromochloromethane	ND ND	111	104	2.7	100	96	4.1	70 - 130	30	
Dibromomethane	ND	107	104	2.8	102	101	1.0	70 - 130	30	
Dichlorodifluoromethane	ND	109	106	2.8	43	<40	NC	70 - 130	30	m
Ethylbenzene	ND	105	101	3.9	100	94	6.2	70 - 130	30	""
Hexachlorobutadiene	ND	100	97	3.0	111	107	3.7	70 - 130	30	
Isopropylbenzene	ND	109	104	4.7	100	94	6.2	70 - 130	30	
m&p-Xylene	ND	106	102	3.8	96	91	5.3	70 - 130	30	
Methyl ethyl ketone	ND	94	95	1.1	70	79	12.1	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	99	95	4.1	108	111	2.7	70 - 130	30	
Methylene chloride	ND	90	89	1.1	75	73	2.7	70 - 130	30	
Naphthalene	ND	100	101	1.0	97	103	6.0	70 - 130	30	
n-Butylbenzene	ND	104	101	2.9	96	92	4.3	70 - 130	30	
n-Propylbenzene	ND	111	106	4.6	99	94	5.2	70 - 130	30	
o-Xylene	ND	106	101	4.8	99	93	6.3	70 - 130	30	
p-Isopropyltoluene	ND	107	105	1.9	101	96	5.1	70 - 130	30	
sec-Butylbenzene	ND	105	102	2.9	98	93	5.2	70 - 130	30	
Styrene	ND	102	99	3.0	98	93	5.2	70 - 130	30	
tert-Butylbenzene	ND	110	105	4.7	105	99	5.9	70 - 130	30	
Tetrachloroethene	ND	106	102	3.8	105	99	5.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	96	99	3.1	83	92	10.3	70 - 130	30	
Toluene	ND	104	102	1.9	98	92	6.3	70 - 130	30	
trans-1,2-Dichloroethene	ND	108	103	4.7	92	85	7.9	70 - 130	30	
trans-1,3-Dichloropropene	ND	105	103	1.9	90	86	4.5	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	105	105	0.0	63	66	4.7	70 - 130	30	m
Trichloroethene	ND	114	110	3.6	102	94	8.2	70 - 130	30	
Trichlorofluoromethane	ND	106	103	2.9	<40	<40	NC	70 - 130	30	m
Trichlorotrifluoroethane	ND	102	100	2.0	102	94	8.2	70 - 130	30	
Vinyl chloride	ND	100	98	2.0	82	42	64.5	70 - 130	30	m,r
% 1,2-dichlorobenzene-d4	99	100	100	0.0	99	101	2.0	70 - 130	30	
% Bromofluorobenzene	100	99	99	0.0	104	105	1.0	70 - 130	30	
% Dibromofluoromethane	94	99	99	0.0	97	98	1.0	70 - 130	30	
% Toluene-d8	101	100	100	0.0	99	99	0.0	70 - 130	30	
Comment:										
Additional 8260 criteria: 10% c	of compounds can be outside of accept	tance criteria as I	ong as re	ecovery i	s 40-160	0%.				
QA/QC Batch 217059, QC S BD12669, BD12670, BD126	Sample No: BD12465 (BD12660, 671)	BD12663, BD1	2664, B	D1266	5, BD1:	2666, B	D12667	, BD1266	8,	
TPH by GC (Extractate	ole Products) - Soil									
Ext. Petroleum HC	ND	81	72	11.8				50 - 150	30	
% n-Pentacosane	87	86	79	8.5				50 - 150	30	
								00		

QA/QC Batch 217058, QC Sample No: BD12467 (BD12668, BD12669) Polynuclear Aromatic HC - Soil 2-Methylnaphthalene 62 0.0 67 69 2.9 ND62 30 - 130 30 Acenaphthene ND 77 78 1.3 84 85 1.2 30 - 130 30 Acenaphthylene ND 0.0 71 72 66 66 1.4 30 - 130 30 Anthracene ND 79 79 0.0 86 88 2.3 30 - 130 30 ND Benz(a)anthracene 84 83 1.2 93 96 3.2 30 - 130 30 Benzo(a)pyrene ND 76 76 0.0 82 85 3.6 30 - 130 30 93 Benzo(b)fluoranthene ND 81 83 2.4 90 3.3 30 - 130 30 Benzo(ghi)perylene ND 76 73 4.0 82 85 3.6 30 - 130 30 Benzo(k)fluoranthene ND 77 81 5.1 87 88 1.1 30 - 130 30 ND 84 0.0 92 94 Chrysene 84 2.2 30 - 130 30

Blank

Parameter

LCS

%

LCSD

%

LCS

RPD

MS

%

MSD

%

SDG I.D.: GBD12659

MS

RPD

%

Rec

Limits

% RPD

Limits

Dibenz(a,h)anthracene	ND	70	70	0.0	78	80	2.5	30 - 130	30	
Fluoranthene	ND	71	71	0.0	79	81	2.5	30 - 130	30	
Fluorene	ND	78	78	0.0	84	87	3.5	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	72	71	1.4	80	82	2.5	30 - 130	30	
Naphthalene	ND	63	64	1.6	68	70	2.9	30 - 130	30	
Phenanthrene	ND	80	81	1.2	88	88	0.0	30 - 130	30	
Pyrene	ND	80	81	1.2	90	91	1.1	30 - 130	30	
% 2-Fluorobiphenyl	69	64	65	1.6	71	72	1.4	30 - 130	30	
% Nitrobenzene-d5	62	58	56	3.5	63	64	1.6	30 - 130	30	
% Terphenyl-d14	69	72	72	0.0	81	83	2.4	30 - 130	30	
Comment:										
	of compounds can be outside of samples: 15-110%, for soils 3		ong as r	ecovery is	s at leas	t 10%. (	Acid surr	ogates		
QA/QC Batch 217201, QC	Sample No: BD12660 (BD1	2660, BD12663, BD1	2664, I	3D12668	B, BD12	2669, B	D12671	, BD12672	2)	
Polychlorinated Biphe	enyls - Soil									
PCB-1016	ND	80	85	6.1	92	86	6.7	40 - 140	30	
PCB-1221	ND							40 - 140	30	
PCB-1232	ND							40 - 140	30	
PCB-1242	ND							40 - 140	30	
PCB-1248	ND							40 - 140	30	
PCB-1254	ND							40 - 140	30	
PCB-1260	ND	85	88	3.5	95	92	3.2	40 - 140	30	
PCB-1262	ND							40 - 140	30	
PCB-1268	ND							40 - 140	30	
% DCBP (Surrogate Rec)	90	89	97	8.6	92	91	1.1	30 - 150	30	
% TCMX (Surrogate Rec)	90	85	92	7.9	96	89	7.6	30 - 150	30	
QA/QC Batch 217130, QC Sample No: BD12681 (BD12672, BD12675, BD12678, BD12679, BD12681, BD12682, BD12684)										
TPH by GC (Extracta	ble Products) - Soil									
Ext. Petroleum HC	ND	66	72	8.7	57	76	28.6	50 - 150	30	
% n-Pentacosane	55	64	72	11.8	62	86	32.4	50 - 150	30	r
QA/QC Batch 217131, QC	Sample No: BD12685 (BD1	2685, BD12686)								·
Polychlorinated Biphe	•	•								
PCB-1016	ND	64	58	9.8	84	85	1.2	40 - 140	30	
PCB-1221	ND							40 - 140	30	
PCB-1232	ND							40 - 140	30	
PCB-1242	ND							40 - 140	30	
PCB-1248	ND							40 - 140	30	
PCB-1254	ND							40 - 140	30	
PCB-1260	ND	71	70	1.4	84	80	4.9	40 - 140	30	
PCB-1262	ND							40 - 140	30	
PCB-1268	ND							40 - 140	30	
% DCBP (Surrogate Rec)	71	75	74	1.3	88	94	6.6	30 - 150	30	
% TCMX (Surrogate Rec)	66	71	69	2.9	76	76	0.0	30 - 150	30	

m = This parameter is outside laboratory ms/msd specified recovery limits. r = This parameter is outside laboratory rpd specified recovery limits.

# QA/QC Data

SDG I.D.: GBD12659

% RPD % LCS LCSD LCS MS MSD MS Rec Blank % RPD % % RPD Limits Limits % Parameter

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

January 03, 2013

Thursday, January 03, 2013

**Sample Criteria Exceedences Report** Requested Criteria: GAM, RC

State: CT

**GBD12659 - GZA-PCB** 

	State: C1						RL	Analysis
SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
BD12668	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / GA/GAA PMC (mg/kg)	6200	210	500	500	mg/Kg
BD12668	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	6200	210	500	500	mg/Kg
BD12669	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / GA/GAA PMC (mg/kg)	4700	210	500	500	mg/Kg
BD12669	\$ETPH_SMR	Ext. Petroleum HC	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	4700	210	500	500	mg/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: 05.0043369.82 COMMERCIAL F Project Number: Laboratory Sample ID(s): BD12659, BD12660, BD12661, BD12662, BD12663, BD12664, BD12665, BD12666, BD12667, BD12668, BD12669, BD12670, BD12671, BD12672, BD12673, BD12674, BD12675, BD12676, BD12677, BD12678, BD12679, BD12680, BD12681, BD12682, BD12683, BD12684, BD12685, BD12686 **Sampling Date(s):** 12/22/2012 **RCP Methods Used:** ☐ 1311/1312
☐ 6010 ☐ EPH 7000 7196 7470/7471 8081 TO15 **✓** 8082 **✓** 8260 **✓** 8270 ✓ ETPH 9010/9012 □ VPH 8151 For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) 2. Were all samples received by the laboratory in a condition consistent with that ✓ Yes No. described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No □ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ✓ Yes No. Were these reporting limits met? 5b. ✓ Yes □ No □ NA For each analytical method referenced in this laboratory report package, were results 6. ☐ Yes **☑** No □ NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ✓ Yes □ No □ NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Thursday, January 03, 2013 Authorized Printed Name: Greg Lawrence Signature: Position: Assistant Lab Director







# **RCP Certification Report**

January 03, 2013

**SDG I.D.: GBD12659** 

8270 Semi-volatile Organics:

Only the PAH constituents are reported as requested on the chain-of-custody for sample ID's BD12668, BD12669.

#### **ETPH Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-fid84 12/26/12-1 (BD12660, BD12663, BD12664, BD12665, BD12666,

BD12667, BD12670, BD12671, BD12672, BD12675, BD12678, BD12679,

BD12681, BD12682, BD12684)

Initial Calibration (FID84 - ETPH\_13) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

The daily continuing calibration standard was within method criteria of +/- 30 % D.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: none

Printed Name Michael Hahn Position: Chemist 12/26/2012

**Instrument:** Au-fid84 12/27/12-1 (BD12660, BD12663, BD12664, BD12665, BD12666,

BD12667, BD12670, BD12671, BD12672, BD12675, BD12678, BD12679,

BD12681, BD12682, BD12684)

Initial Calibration (FID84 - ETPH\_13) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

The daily continuing calibration standard was within method criteria of +/- 30 %D.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: none

Printed Name Keith Aloisa Position: Chemist Date: 12/27/2012

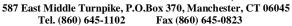
**Instrument:** Au-xl1 12/29/12-1 (BD12668, BD12669)

Initial Calibration (FIDXL1 ETPH\_1) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

The daily continuing calibration standard was within method criteria of +/- 30 %D.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: C36







# **RCP Certification Report**

January 03, 2013

**SDG I.D.: GBD12659** 

Printed Name Jeff Bucko
Position: Chemist
Date: 12/29/2012

**QC** Comments: QC Batch 17059 12/24/12 (BD12660, BD12663, BD12664, BD12665, BD12666,

BD12667, BD12668, BD12669, BD12670, BD12671)

QC Comments: QC Batch 17130 12/26/12 (BD12672, BD12675, BD12678, BD12679, BD12681,

BD12682, BD12684)

#### QC (Site Specific)

----- Sample No: BD12681, QA/QC Batch: 217130 -----

All LCS recoveries were within 50 - 150 with the following exceptions: None.

All LCSD recoveries were within 50 - 150 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

All MS recoveries were within 50 - 150 with the following exceptions: None.

All MSD recoveries were within 50 - 150 with the following exceptions: None.

All MS/MSD RPDs were less than 30% with the following exceptions: % n-Pentacosane(32.4%)

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria. **QC (Batch Specific)** 

----- Sample No: BD12465, QA/QC Batch: 217059 -----

All LCS recoveries were within 50 - 150 with the following exceptions: None.

All LCSD recoveries were within 50 - 150 with the following exceptions: None.

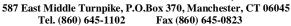
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **PAH Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**QC Comments:** QC Batch 17058 12/24/12 (BD12668, BD12669)







# **RCP Certification Report**

**January 03, 2013** 

**SDG I.D.: GBD12659** 

#### QC (Batch Specific)

----- Sample No: BD12467, QA/QC Batch: 217058 -----

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd3 12/27/12-1 (BD12685, BD12686)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/27/2012

**Instrument:** Au-ecd3 12/28/12-1 (BD12660, BD12672)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/28/2012

**Instrument:** Au-ecd3 12/31/12-1 (BD12668, BD12669, BD12671)

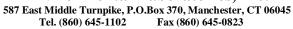
8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none









# **RCP Certification Report**

January 03, 2013

**SDG I.D.: GBD12659** 

**Printed Name** Adam Werner **Position:** Chemist **Date:** 12/31/2012

**Instrument:** Au-ecd6 12/28/12-1 (BD12663, BD12664)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

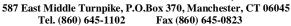
**Printed Name** Adam Werner **Position:** Chemist **Date:** 12/28/2012

QC Comments: QC Batch 17131 12/26/12 (BD12685, BD12686)

**QC** Batch 17201 12/27/12 (BD12660, BD12663, BD12664, BD12668, BD12669,

BD12671, BD12672)







# **RCP Certification Report**

January 03, 2013

**SDG I.D.: GBD12659** 

QC (Site Specific)
Sample No: BD12660, QA/QC Batch: 217201
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Sample No: BD12685, QA/QC Batch: 217131
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria

# **Instrument:** Chem07 12/26/12-1 (BD12668, BD12669)

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

Initial Calibration (Chem07/SV\_1214):

Greater than 90% of the target compounds met calibration criteria with a RSD <20% or >0.99 correlation coefficient. The following compounds had RSDs >20% and <0.99 correlation coefficient: Hexachlorocyclopentadiene, Atrazine

The following compounds failed to meet the minimum required response factor: 2-nitrophenol, Hexachlorobenzene

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### Continuing Calibration:

**SVOA Narration** 

Greater than 80% of target compounds met continuing calibration criteria with a %D <20. The following compunds had >20% difference from the initial calibration: Benzaldehyde, Aniline, 4-Chloroaniline, Atrazine, Carbazole, Di-n-octylphthalate



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

January 03, 2013

**SDG I.D.: GBD12659** 

Printed Name Damien Drobinski

**Position:** Chemist **Date:** 12/26/2012

**QC Comments:** QC Batch 17058 12/24/12 (BD12668, BD12669)

#### QC (Batch Specific)

----- Sample No: BD12467, QA/QC Batch: 217058 -----

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

#### **VOA Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### **Instrument:** Chem15 12/26/12-1 (BD12673)

Initial Calibration Verification (CHEM15/RCPS\_1226):

>90% of target compounds met criteria.

The following compounds had %RSDs >20%: Chloromethane, Acetone, Methylene Chloride

#### Continuing Calibration Verification:

>80% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration.

The following compounds had % Deviations >20%: Tetrahydrofuran (THF)

Printed Name Phyllis Shiller Position: Chemist 12/26/2012



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

January 03, 2013

**SDG I.D.: GBD12659** 

#### QC (Batch Specific)

----- Sample No: BD12006, QA/QC Batch: 217244 -----

All LCS recoveries were within 70 - 130 with the following exceptions: None.

All LCSD recoveries were within 70 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Additional 8260 criteria: 10% of compounds can be outside of acceptance criteria as long as recovery is 40-160%.

## **Temperature Narration**

The samples in this delivery group were received at  $6^{\circ}$ C. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

### Greg - Phoenixlabs

From: James Hutton [james.hutton@gza.com]

Sent: Wednesday, December 26, 2012 4:43 PM

To: Greg - Phoenixlabs

Subject: Re: Samples

Can those two samples be done in 24 hour TAT?

If yes, please do so.

Thanks very much for your follow up on this. Excellent as always.

Jim H

Sent from my iPhone

BD12685

On Dec 26, 2012, at 4:39 PM, "Greg - Phoenixlabs" < greg@phoenixlabs.com > wrote:

Jim,

I did find a COC with A14 S-1 and A14 S-2 for PCB only, with a 48 hour TAT.

Gregory Lawrence Phoenix Environmental Laboratories 587 East Middle Turnpike Manchester, CT 06040

Ph: 1-860-645-1102

This electronic message is intended to be viewed only by the individual or entity to which it is addressed and may contain privileged and/or confidential information intended for the exclusive use of the addressee(s). If you are not the intended recipient, please be aware that any disclosure, printing, copying, distribution or use of this information is prohibited. If you have received this message in error, please notify the sender immediately and destroy this message and its attachments from your system.

For information about GZA GeoEnvironmental, Inc. and its services, please visit our website at www.gza.com

Coolant, FIRE CONTRACTOR \* SURCHARGE APPLIES Phoenix Std Report Full Data Package\* [ Fresi: James. husten a gra, com Ú Ü, 8 Tier II Checklist Ġ 4 ₽ Data Package Data Format Excel
R PDF
GIS/Key Other ☐ EQuIS Other  $\mathcal{O}^{\mathbb{C}_{\mathbf{Pg}}}$ MA MCP Certification ☐ MWRA eSMART Temp 05.0047369.82 (Commune - 1 Foundry) Project P.O. 1 Phone #: Fax #: ☐ GW-3 ☐ GW-2 ☐ GW-1 Data Delivery: S-1 S-2 State where samples were collected: K Residential DEC SW Protection GW Protection CT RCP Cert KGA Mobility ☐ GB Mobility ☐ I/C DEC Other GZA Accounting RI Direct Exposure James Hotta 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 (Residential) **CHAIN OF CUSTODY RECORD** ☐ Other § □ 1630 × × \* SURCHARGE APPLIES × Time: Report to: invoice to: 3 Days\*
X Standard
Other Project: 7/260 1422/12 2/192/21 Request × Turnaround: Analysis × ☐ 2 Days\* يز × × Date: 09560 all anothers ponding results of other samples Date: /2/2//プ And the FIPH. If ETPH > RSRs, How analy for SVOC-PAHS. Sampled 0460 Comments, Special Requirements or Regulations:
A. PCB defeatin linits < 0.5 pm. Other analyses of weet RSR defeator linits ٢۶۶٥ Time 0820 8 2 20 20 0905 940 80 1020 0915 10/ DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water Suix 402 Sampled 0=Other Glasten biny, CT 06033 Date TAIR Client Sample - Information - Identification 62 A GEO Environ mental 655 Window Brook Done, W=Wipe Sample Matrix GEA FOUR Environmental Laboratories, Inc Accepted by: 04 A4-5-3 (0-6") (14-0 A4-5-5(0-2 (70) A4-5-2(0-2) A3-5-1 (0-21) A4-5-6(6-2) A3-5-2 (0-21) A3-5-4 (0-2) A3-5-4 (2-4') S=Soil/Solid A4-5-1 (0-2) Customer Sample Identification 74-5-4 A3-5-5 A3-5-SE=Sediment SL=Sludge 7 PHOENIX USE ONLY Customer: 0097 **と**のので Address: 9 2 4 Sampler's Signature

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Phoenix Std Report

Full Data Package\* Tier II Checklist Data Package

| S-2 | S-3 | MWRA eSMART | Other

Residential DEC

A. PCB detector (mirts < 0.5 ppn. All other mulyses descents (nuits to meet RSRs.

S-1-8

GB Mobility

\* SURCHARGE APPLIES

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State where samples were collected:

\* SURCHARGE APPLIES

C. Hold all analyses pending results of other samples.

Analyse for ETPH. It results > RSRs, then run svac-PAHs,

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a. Hold all analyses powering results of other samples.



Thursday, January 03, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY

Sample ID#s: BD12964 - BD12970, BD12972 - BD12980, BD12982 - BD12987

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A.B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 11:25 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request:

Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12964

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A3-F1-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	*	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	*	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
Total PCBs	1.8	0.33	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	95		%	12/28/12	AW	30 - 150 %
% TCMX	122		%	12/28/12	AW	30 - 150 %

Page 1 of 44 Ver 1

Client ID: A3-F1-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12964

Page 2 of 44 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 11:30 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

**Laboratory Data** 

SDG ID: GBD12964

Phoenix ID: BD12965

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A3-F2-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	*	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
Total PCBs	0.66	0.33	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	84		%	12/28/12	AW	30 - 150 %
% TCMX	101		%	12/28/12	AW	30 - 150 %

Page 3 of 44 Ver 1

Client ID: A3-F2-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12965

Page 4 of 44 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: JA 12/26/12 11:45 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD12964

Phoenix ID: BD12966

Project ID: COMMERCIAL FOUNDRY

Client ID: A3-F3-0-0.5

RL/ **PQL** Date/Time Parameter Result Units Βv Reference Percent Solid 98 % 12/27/12 E160.3 JL BQ/K/E SW3540C Extraction for PCB Completed 12/27/12 PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 12/28/12 AW 3540C/8082 ND 12/28/12 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 12/28/12 ΑW 3540C/8082 PCB-1242 0.33 mg/kg 0.33 12/28/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 12/28/12 AW 3540C/8082 PCB-1260 ND 0.33 12/28/12 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1268 ND 12/28/12 ΑW 3540C/8082 0.33 mg/kg 3540C/8082 0.33 12/28/12 AW Total PCBs 1.1 mg/kg **QA/QC Surrogates** % DCBP 91 % 12/28/12 AW 30 - 150 % 109 12/28/12 ΑW 30 - 150 % % TCMX %

Page 5 of 44 Ver 1

Client ID: A3-F3-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12966

Page 6 of 44 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: JA 12/26/12 11:50 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12967

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A3-F4-0-0.5

P.O.#:

RL/ **PQL** Date/Time Parameter Result Units Βv Reference Percent Solid 100 % 12/27/12 E160.3 JL BQ/K/E SW3540C Extraction for PCB Completed 12/27/12 PCB (Soxhlet) PCB-1016 ND 0.32 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 0.32 mg/kg 12/28/12 AW 3540C/8082 ND 12/28/12 ΑW 3540C/8082 PCB-1232 0.32 mg/kg ND 0.32 12/28/12 ΑW 3540C/8082 PCB-1242 mg/kg 0.32 12/28/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.32 mg/kg 12/28/12 AW 3540C/8082 PCB-1260 ND 0.32 12/28/12 ΑW mg/kg PCB-1262 ND 0.32 mg/kg 12/28/12 ΑW 3540C/8082 ND 12/28/12 ΑW 3540C/8082 PCB-1268 0.32 mg/kg 3540C/8082 0.32 12/28/12 AW Total PCBs 2.8 mg/kg **QA/QC Surrogates** % DCBP 82 % 12/28/12 AW 30 - 150 % 105 12/28/12 ΑW 30 - 150 % % TCMX %

> Page 7 of 44 Ver 1

Client ID: A3-F4-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12967

Page 8 of 44 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 12:00 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

**Laboratory Data** 

SDG ID: GBD12964

Phoenix ID: BD12968

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A3-F5-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	1.6	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	1.6	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	1.6	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	1.6	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	*	1.6	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	*	1.6	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	1.6	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	1.6	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	1.6	mg/kg	12/31/12	AW	3540C/8082
Total PCBs	6.9	1.6	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	12/31/12	AW	30 - 150 %
% TCMX	Diluted Out		%	12/31/12	AW	30 - 150 %

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Client ID: A3-F5-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12968

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 12:25 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12969

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A4-F1-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	97		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	*	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	*	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
Total PCBs	3.9	0.34	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	97		%	12/28/12	AW	30 - 150 %
% TCMX	120		%	12/28/12	AW	30 - 150 %

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Client ID: A4-F1-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12969

Page 12 of 44 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: JA 12/26/12 12:10 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41

Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12970

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A4-F2-0-0.5

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 99 % 12/27/12 E160.3 JL BQ/K/E SW3540C Extraction for PCB Completed 12/27/12 PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 12/28/12 AW 3540C/8082 ND 12/28/12 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 12/28/12 ΑW 3540C/8082 PCB-1242 0.33 mg/kg 12/28/12 AW 3540C/8082 PCB-1248 0.33 mg/kg 3540C/8082 PCB-1254 0.33 mg/kg 12/28/12 AW 3540C/8082 PCB-1260 ND 0.33 12/28/12 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1268 ND 12/28/12 ΑW 3540C/8082 0.33 mg/kg 3540C/8082 0.53 0.33 12/28/12 AW Total PCBs mg/kg **QA/QC Surrogates** % DCBP 98 % 12/28/12 AW 30 - 150 % 93 12/28/12 ΑW 30 - 150 % % TCMX %

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Client ID: A4-F2-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12970

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: JA 12/26/12 12:40 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12972

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A4-F3 0-0.5

P.O.#:

RL/ **PQL** Date/Time Parameter Result Units Βv Reference Percent Solid 99 % 12/27/12 E160.3 JL BQ/K/E SW3540C Extraction for PCB Completed 12/27/12 PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 12/28/12 AW 3540C/8082 ND 12/28/12 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 12/28/12 ΑW 3540C/8082 PCB-1242 0.33 mg/kg 12/28/12 AW 3540C/8082 PCB-1248 0.33 mg/kg 3540C/8082 PCB-1254 0.33 mg/kg 12/28/12 AW 3540C/8082 PCB-1260 ND 0.33 12/28/12 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 12/28/12 ΑW 3540C/8082 ND 12/28/12 ΑW 3540C/8082 PCB-1268 0.33 mg/kg 3540C/8082 0.68 0.33 12/28/12 AW Total PCBs mg/kg **QA/QC Surrogates** % DCBP 94 % 12/28/12 AW 30 - 150 % 118 12/28/12 ΑW 30 - 150 % % TCMX %

> Page 15 of 44 Ver 1

Client ID: A4-F3 0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12972

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: JA 12/26/12 12:50 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12973

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A4-F5-0-0.5

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 99 % 12/27/12 E160.3 JL BQ/K/E SW3540C Extraction for PCB Completed 12/27/12 PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 12/28/12 AW 3540C/8082 ND 12/28/12 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 12/28/12 ΑW 3540C/8082 PCB-1242 0.33 mg/kg 12/28/12 AW 3540C/8082 PCB-1248 0.33 mg/kg 3540C/8082 PCB-1254 0.33 mg/kg 12/28/12 AW 3540C/8082 PCB-1260 ND 0.33 12/28/12 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1268 ND 12/28/12 ΑW 3540C/8082 0.33 mg/kg 3540C/8082 0.53 0.33 12/28/12 AW Total PCBs mg/kg **QA/QC Surrogates** % DCBP 105 % 12/28/12 AW 30 - 150 % 94 12/28/12 ΑW 30 - 150 % % TCMX %

> Page 17 of 44 Ver 1

Client ID: A4-F5-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12973

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 12:45 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request:

Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GBD12964

Phoenix ID: BD12974

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A4-F4-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	104		%	12/28/12	AW	30 - 150 %
% TCMX	111		%	12/28/12	AW	30 - 150 %

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Client ID: A4-F4-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12974

Page 20 of 44 Ver 1



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: JA 12/26/12 12:55 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD12964

Phoenix ID: BD12975

Project ID: COMMERCIAL FOUNDRY

Client ID: A4-F6-0.0.5

RL/ **PQL** Date/Time Parameter Result Units Βv Reference Percent Solid 98 % 12/27/12 E160.3 JL BQ/K/E SW3540C Extraction for PCB Completed 12/27/12 PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 12/28/12 AW 3540C/8082 ND 12/28/12 ΑW 3540C/8082 PCB-1232 0.34 mg/kg ND 12/28/12 ΑW 3540C/8082 PCB-1242 0.34 mg/kg 12/28/12 AW 3540C/8082 PCB-1248 0.34 mg/kg 3540C/8082 PCB-1254 0.34 mg/kg 12/28/12 AW 3540C/8082 PCB-1260 ND 0.34 12/28/12 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 12/28/12 ΑW 3540C/8082 PCB-1268 ND 12/28/12 ΑW 3540C/8082 0.34 mg/kg 3540C/8082 3 0.34 12/28/12 AW Total PCBs mg/kg **QA/QC Surrogates** % DCBP 101 % 12/28/12 AW 30 - 150 % 135 12/28/12 ΑW 30 - 150 % % TCMX %

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Client ID: A4-F6-0.0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12975

Page 22 of 44 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 14:05 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12976

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A5-F1-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	*	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	*	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
Total PCBs	1.2	0.33	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	134		%	12/28/12	AW	30 - 150 %
% TCMX	122		%	12/28/12	AW	30 - 150 %

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Client ID: A5-F1-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12976

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 14:10 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12977

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A5-F2-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	*	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	*	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
Total PCBs	3.4	0.33	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	108		%	12/31/12	AW	30 - 150 %
% TCMX	98		%	12/31/12	AW	30 - 150 %

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Client ID: A5-F2-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12977

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 14:15 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12978

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A5-F3-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	*	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	*	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
Total PCBs	2.7	0.34	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	99		%	12/31/12	AW	30 - 150 %
% TCMX	116		%	12/31/12	AW	30 - 150 %

Page 27 of 44 Ver 1

Client ID: A5-F3-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12978

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: JA 12/26/12 14:20 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12979

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A5-F4-0-0.5

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 97 % 12/27/12 E160.3 JL Extraction for PCB BQ/K/E SW3540C Completed 12/27/12 PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.34 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.34 mg/kg 12/31/12 AW 3540C/8082 PCB-1248 0.34 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.34 AW mg/kg PCB-1262 ND 0.34 mg/kg 12/31/12 AW 3540C/8082 PCB-1268 ND 12/31/12 ΑW 3540C/8082 0.34 mg/kg 3540C/8082 0.34 12/31/12 AW Total PCBs 1 mg/kg **QA/QC Surrogates** % DCBP 94 % 12/31/12 AW 30 - 150 % 99 12/31/12 ΑW 30 - 150 % % TCMX %

> Page 29 of 44 Ver 1

Client ID: A5-F4-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12979

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 14:25 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12980

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A5-F5-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	97		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3.3	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	3.3	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	3.3	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	3.3	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	*	3.3	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	ND	3.3	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	3.3	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	3.3	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	3.3	mg/kg	12/31/12	AW	3540C/8082
Total PCBs	9.6	3.3	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	12/31/12	AW	30 - 150 %
% TCMX	Diluted Out		%	12/31/12	AW	30 - 150 %

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Client ID: A5-F5-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12980

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: JA 12/26/12 13:00 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12982

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A4-F7-0-0.5

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 99 % 12/27/12 E160.3 JL Extraction for PCB BQ/K/E SW3540C Completed 12/27/12 PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.33 mg/kg 12/31/12 AW 3540C/8082 PCB-1248 0.33 mg/kg 3540C/8082 PCB-1254 0.33 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.33 AW mg/kg PCB-1262 ND 0.33 mg/kg 12/31/12 AW 3540C/8082 PCB-1268 ND 12/31/12 ΑW 3540C/8082 0.33 mg/kg 3540C/8082 0.33 12/31/12 AW Total PCBs 1.5 mg/kg **QA/QC Surrogates** % DCBP 104 % 12/31/12 AW 30 - 150 % 95 12/31/12 ΑW 30 - 150 % % TCMX %

> Page 33 of 44 Ver 1

Client ID: A4-F7-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12982

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 14:40 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41

Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12983

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F1-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	98		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	1.7	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	1.7	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	1.7	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	1.7	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	*	1.7	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	ND	1.7	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	1.7	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	1.7	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	1.7	mg/kg	12/31/12	AW	3540C/8082
Total PCBs	7	1.7	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	12/31/12	AW	30 - 150 %
% TCMX	Diluted Out		%	12/31/12	AW	30 - 150 %

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Client ID: A10-F1-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12983

Page 36 of 44 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 14:45 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12984

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F2-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	98		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	*	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	*	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
Total PCBs	0.62	0.34	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	113		%	12/28/12	AW	30 - 150 %
% TCMX	94		%	12/28/12	AW	30 - 150 %

Page 37 of 44 Ver 1

Client ID: A10-F2-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12984

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 14:50 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD12964

Phoenix ID: BD12985

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-F3-0-0.5

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	*	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	*	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
Total PCBs	1	0.33	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	96		%	12/28/12	AW	30 - 150 %
% TCMX	97		%	12/28/12	AW	30 - 150 %

Page 39 of 44 Ver 1

Client ID: A10-F3-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12985

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 14:55 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD12964

Phoenix ID: BD12986

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F4-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	*	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	*	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
Total PCBs	0.5	0.33	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	103		%	12/28/12	AW	30 - 150 %
% TCMX	96		%	12/28/12	AW	30 - 150 %

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Client ID: A10-F4-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12986

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 15:00 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41

Rush Request: Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GBD12964

Phoenix ID: BD12987

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F5-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	100		%	12/28/12	AW	30 - 150 %
% TCMX	89		%	12/28/12	AW	30 - 150 %

Page 43 of 44 Ver 1

Client ID: A10-F5-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12987

Page 44 of 44 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

## QA/QC Report

January 03, 2013

### QA/QC Data

Data SDG I.D.: GBD12964

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits
QA/QC Batch 217201, QC 5			2966, B	D12967	, BD1:	2968, BI	D12969	, BD1297	0,
BD12972, BD12973, BD129		3D12977)							
Polychlorinated Biphe	enyls - Solid								
PCB-1016	ND	80	85	6.1	92	86	6.7	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	85	88	3.5	95	92	3.2	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	90	89	97	8.6	92	91	1.1	30 - 150	30
% TCMX (Surrogate Rec)	90	85	92	7.9	96	89	7.6	30 - 150	30
QA/QC Batch 217233, QC S BD12986, BD12987)	Sample No: BD12978 (BD1	2978, BD12979, BD1	2980, B	D12982	2, BD1:	2983, BI	D12984	, BD1298	5,
Polychlorinated Biphe	enyls - Solid								
PCB-1016	ND ND	95	86	9.9				40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	96	87	9.8				40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	87	95	87	8.8				30 - 150	30
% TCMX (Surrogate Rec)	85	98	87	11.9				30 - 150	30
Comment:									
A LCS and LCS Duplicate wer	re performed instead of a matri	x spike and matrix spike	duplicate						

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria Intf - Interference Phyllis/Shiller, Laboratory Director

January 03, 2013

Thursday, January 03, 2013 Requested Criteria: None Sample Criteria Exceedences Report
GBD12964 - GZA-PCB

Page 1 of 1

State: CT

RL Analysis
SampNo Acode Phoenix Analyte Criteria Result RL Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

<sup>\*\*\*</sup> No Data to Display \*\*\*

## Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY **Project Number:** Laboratory Sample ID(s): BD12964, BD12965, BD12966, BD12967, BD12968, BD12969, BD12970, BD12971, BD12972, BD12973, BD12974, BD12975, BD12976, BD12977, BD12978, BD12979, BD12980, BD12981, BD12982, BD12983, BD12984, BD12985, BD12986, BD12987 **Sampling Date(s):** 12/26/2012 **RCP Methods Used:** ☐ 1311/1312
☐ 6010 7000 7196 7470/7471 8081 ☐ EPH TO15 **✓** 8082 8270 9010/9012 □ VPH 8151 8260 ETPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) 2. Were all samples received by the laboratory in a condition consistent with that ✓ Yes No. described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No □ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ☐ Yes ✓ No Were these reporting limits met? 5b. **✓** NA ☐ Yes ☐ No For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes No □ NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ✓ Yes □ No □ NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Thursday, January 03, 2013 Authorized Printed Name: Greg Lawrence Signature: Position: Assistant Lab Director



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# **RCP Certification Report**

January 03, 2013

**SDG I.D.: GBD12964** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** <u>Au-ecd3 12/28/12-1 (BD12984, BD12985, BD12986, BD12987)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/28/2012

**Instrument:** <u>Au-ecd3 12/31/12-1 (BD12977, BD12982)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/31/2012

**Instrument:** Au-ecd35 12/31/12-1 (BD12968, BD12983)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/31/2012

**Instrument:** Au-ecd6 12/28/12-1 (BD12964, BD12965, BD12966, BD12967, BD12969,

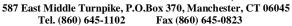
BD12970, BD12972, BD12973, BD12974, BD12975, BD12976)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none







## **RCP Certification Report**

January 03, 2013

**SDG I.D.: GBD12964** 

Printed Name Adam Werner Position: Chemist 12/28/2012

**Instrument:** Au-ecd6 12/31/12-1 (BD12978, BD12979, BD12980)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 12/31/2012

QC Batch 17201 12/27/12 (BD12964, BD12965, BD12966, BD12967, BD12968,

BD12969, BD12970, BD12972, BD12973, BD12974, BD12975, BD12976,

BD12977)

OC Comments: QC Batch 17233 12/27/12 (BD12978, BD12979, BD12980, BD12982, BD12983,

BD12984, BD12985, BD12986, BD12987)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

#### QC (Site Specific)

----- Sample No: BD12978, QA/QC Batch: 217233 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria. **QC (Batch Specific)** 

----- Sample No: BD12660, QA/QC Batch: 217201 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.



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# **RCP** Certification Report

**January 03, 2013** 

**SDG I.D.: GBD12964** 

### **Temperature Narration**

The samples were received at 6C with cooling initiated. No bias in the sample results are suspected due to temperature.

				CHAIN OF CUSTODY RECORD	JSTODY	RECORD		Cogfair Temp[O	Coolants (IPP) (C) (C)	2 N Z
PHOFIN			58 Ema	587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823	pike, Manche	ster, CT 06040 × (860) 645-0823	Data	Data Delivery:		
Environmental Lab	Laboratories, Inc.		:	Client Services (860) 645-8726	es (860) (	545-8726	<b>2</b> .	Email: プャハビン、サンバト	コテハビシ、サンプラントン 624. Co.	۲
Customer: 62	624			Project:	COMM	connercial Founday	いひんグ	Project P.O:	43368.82	
Address: 655 ₩	655 WINDING BROOK DR	אָר		Report to:	F	I'm HOTTON	,	Phone #:	-	
Cinsti	Girster Bory CT 06	06.033		Invoice to:		DIM HOTTON		Fax #:		
Client Samp	Client Sample - Infermation - Identification	tification								
Sampler's Signature	the gry	4 Date:	Ishelp	Analysis	1/3			Oct.	18. 45. C.	MOS
				}	THOS.			100		400
Matrix Code: / DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	und Water SW=Surface S=Soil/Solid W=\	Water <b>WW</b> =V Vipe O=Oth	Vaste Water ner	- Annaum				\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		14
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12965 A3-F2	A3-F2-0-0,5 0			×						
12966 A3 F3	43. F3-0-0,5 0		1,5 1145	*						
12967 A3-F4	A3-F4-0-0,5 0	12/24		K						
129pg A3-FS	A3-F5-0-015 0	/2/	_	×						
3000	A4-F1-0-0,5 0	12/24	1/12/205	×						
12970 A4-F2-0-0,5	0 5,0-0-	12/26/12	12/	・ベ						
X	7	1/2/21	5021 24	×						0
12972 A4-F3	A4-1-3-0-0.5 0	12/20/17	12 12/10	×						
12573 A4-F5-0-0.5	0-0.5	12/24	1253	×						
H-44 14601	-0-0.5	11/20/11	12 1245	×						
13935 A4-F6	0 5.0-0-	1/22/21	12 1255	X						
Relinguished by	Accepted by:	.		Date: Ti	Time:		CI.	MA	Data Format	
fulle out	624 FAIDE			1 2//2/21	725	☐ Direct Exposure (Residential)	RCP Cert	MCP Certification	Excel	
1 524 Find	A A		:	1 2/1/2021	(1:15	Gw	SW Protection	GW-2	GIS/Key	
<b>X</b>				1848B	13 41	Other	GA Mobility	Gw-3	☐ EQuIS	

Tier II Checklist
Full Data Package\*
N Phoenix Std Report
Other

| S-2 | S-3 | MWRA eSMART

Residential DEC

GB Mobility

Other

Comments, Special Requirements or Regulations:

OHUS SAMPLE AND FACEZE

ם- כפיאנתבול

Data Package

Data Format

Excel
Signature
Circle

□ GW-3 S-1 \* SURCHARGE APPLIES

77

State where samples were collected:

\* SURCHARGE APPLIES

CHAIN OF CUSTODY RECORD	587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823
	JEMIX 💒

K Emall Traces, Hotton DECA.Con	Project P.O: 43365. 52	Phone #:	Fax #:		1000/2001
Email: info@phoenixlabs.com	Connencial Porter	J. 1. 11. 11. 10. 10. 10.	JIM HUTTS		I STE
info@phoenixlabs.c :lient Services	Project:	Report to:		Analysis	
nvironmental Laboratories, Inc.	r. 621	653 WINSVIVE BROOK BA	Genstangeny et chass	Client Sample Mormation - Identification	fille Ber Sulli
Environ	Customer:	Address:			Sampler's

11000		OR BIRDER TO SOLITOR						6	)						Data Format	Excel	A PDF ☐ GIS/Key	EQUIS	Data Package	Tier II Checklist	Full Data Package.  Phoenix Std Report	Other	* SURCHARGE APPLIES
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															$\overline{}$	Direct Exposure RCP Cert	GW SW SW Protection		GB Mobility	Residential DEC	☐ I/C DEC☐ Other		State where samples were collected:
Analysis Request	Jerry	The state of the s	4	×	×	×		7	X			X	X		Date: Time:	12/26/12 1715-	51:11 2/12/21	12371-1437	Turnaround: 1341	1 Day*	2 Days*	Standard	U Other * SURCHARGE APPLIES
ation Date: 12/15/12	er <b>ww</b> =Waste Water C=Other	Date Time Sampled Sampled	Meth	12/24/2 1410	211/2/11	1/2/1/1/1/1420	12/10/17 1425	12/2 die 1715	11/26/12 1300	12/20/12 1440	12/26/12 1445	12/11/21 1450	12/26/12 1455	12/12/12 1500		<i>C</i>			)		<del>Π</del>		
Client Sample Jeformation - Identification	Matrix Code/ DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe 0=Other	Customer Sample Sample Identification	لې	A5-F2-0-0,5 C	45-F3 -0-0,5 0	AS-F4 -0-0.5 0	AS-F5 -0-0.5 0	A5-1-3	A4-F7-0-05 0	A10-F1-0-0.5 0	A10-F2-0-0.5 0	A10-F3-0-0,5 0	A10-F4-0-0.5 0	410-F5-0-0,5 0	Accepted by:	29 624 AN 396			Requirements or Regulations:		O HOLD SAMPLE MAND FACERET		
Signature	Matrix Code:  DW=Drinking Water G SE=Sediment SL=SI	PHOENIX USE ONLY SAMPLE #	12936 A.	12977 AS	12978 4	12578 A.	12986 A	12981 A	18 -86-E1	12963 AIG	12984 AI	185	12986 AR	12987AN	Relinguished by:	Ant the are	とがよび人		Comments, Special Re	のこうとと	O HOLD SAN		



Thursday, January 03, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY

Sample ID#s: BD12988 - BD13001

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 15:05 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD12988

Phoenix ID: BD12988

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F6-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	*	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	*	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
Total PCBs	1	0.33	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	88		%	12/28/12	AW	30 - 150 %
% TCMX	88		%	12/28/12	AW	30 - 150 %

Page 1 of 28 Ver 1

Client ID: A10-F6-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12988

Page 2 of 28 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 15:10 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD12988

Phoenix ID: BD12989

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F7-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	*	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	*	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.34	mg/kg	12/28/12	AW	3540C/8082
Total PCBs	2.5	0.34	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	100		%	12/28/12	AW	30 - 150 %
% TCMX	94		%	12/28/12	AW	30 - 150 %

Page 3 of 28 Ver 1

Client ID: A10-F7-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12989

Page 4 of 28 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 15:20 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD12988

Phoenix ID: BD12990

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-F8-0-0.5

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	*	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	*	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
Total PCBs	0.48	0.33	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	103		%	12/28/12	AW	30 - 150 %
% TCMX	92		%	12/28/12	AW	30 - 150 %

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Client ID: A10-F8-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12990

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 15:25 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD12988

Phoenix ID: BD12991

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F9-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/27/12	BQ/K/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/28/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	98		%	12/28/12	AW	30 - 150 %
% TCMX	90		%	12/28/12	AW	30 - 150 %

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Client ID: A10-F9-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12991

Page 8 of 28 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: JA 12/26/12 15:30 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD12988

Phoenix ID: BD12992

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F10-0-0.5

P.O.#:

RL/ **PQL** Date/Time Parameter Result Units Βv Reference Percent Solid 97 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.34 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.34 mg/kg 12/31/12 AW 3540C/8082 PCB-1248 0.34 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.34 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1268 ND 12/31/12 ΑW 3540C/8082 0.34 mg/kg 3540C/8082 0.47 0.34 12/31/12 AW Total PCBs mg/kg **QA/QC Surrogates** % DCBP 96 % 12/31/12 AW 30 - 150 % 84 12/31/12 ΑW 30 - 150 % % TCMX %

> Page 9 of 28 Ver 1

Client ID: A10-F10-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12992

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: JA 12/26/12 15:35 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD12988

Phoenix ID: BD12993

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F11-0-0.5

P.O.#:

RL/ **PQL** Date/Time Parameter Result Units Βv Reference Percent Solid 99 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.33 mg/kg 0.33 12/31/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.33 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1268 ND 12/31/12 ΑW 3540C/8082 0.33 mg/kg 3540C/8082 0.33 12/31/12 AW Total PCBs 1.2 mg/kg **QA/QC Surrogates** % DCBP 106 % 12/31/12 AW 30 - 150 % 96 12/31/12 ΑW 30 - 150 % % TCMX %

> Page 11 of 28 Ver 1

Client ID: A10-F11-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12993

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOLID Collected by: JA 12/26/12 15:40 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

**Laboratory Data** 

SDG ID: GBD12988

Phoenix ID: BD12994

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F12-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/28/12	BB/E/D	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	*	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
Total PCBs	3.2	0.33	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	98		%	12/31/12	AW	30 - 150 %
% TCMX	85		%	12/31/12	AW	30 - 150 %

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Client ID: A10-F12-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12994

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: JA 12/26/12 15:45 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41

Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD12988

Phoenix ID: BD12995

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F13-0-0.5

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 99 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.34 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.34 mg/kg ND 12/31/12 AW 3540C/8082 PCB-1248 0.34 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.34 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 12/31/12 ΑW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 80 % 12/31/12 AW 30 - 150 % 66 % 12/31/12 30 - 150 % % TCMX

> Page 15 of 28 Ver 1

Client ID: A10-F13-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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January 03, 2013

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Phoenix I.D.: BD12995

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 15:50 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82 Laboratory Data

SDG ID: GBD12988

Phoenix ID: BD12996

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-F14-0-0.5

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/28/12	BB/E/D	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	86		%	12/31/12	AW	30 - 150 %
% TCMX	68		%	12/31/12	AW	30 - 150 %

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Client ID: A10-F14-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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January 03, 2013

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 16:10 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD12988

Phoenix ID: BD12997

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F15-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/28/12	BB/E/D	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	*	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	*	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
Total PCBs	4.4	0.33	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	94		%	12/31/12	AW	30 - 150 %
% TCMX	50		%	12/31/12	AW	30 - 150 %

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Client ID: A10-F15-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12997

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOLID Collected by: JA 12/26/12 16:15 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GBD12988

Phoenix ID: BD12998

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F16-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/28/12	BB/E/D	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	*	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
Total PCBs	1.4	0.34	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	91		%	12/31/12	AW	30 - 150 %
% TCMX	76		%	12/31/12	AW	30 - 150 %

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Client ID: A10-F16-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12998

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOLID Collected by: JA 12/26/12 16:20 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

**Laboratory Data** 

SDG ID: GBD12988

Phoenix ID: BD12999

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F17-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	98		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/28/12	BB/E/D	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	*	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	*	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
Total PCBs	1.9	0.33	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	98		%	12/31/12	AW	30 - 150 %
% TCMX	96		%	12/31/12	AW	30 - 150 %

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Client ID: A10-F17-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD12999

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: JA 12/26/12 16:25 Received by: Location Code: **GZA-PCB** LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD12988

Phoenix ID: BD13000

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F18-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/28/12	BB/E/D	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	*	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	*	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	12/31/12	AW	3540C/8082
Total PCBs	1.1	0.33	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	114		%	12/31/12	AW	30 - 150 %
% TCMX	61		%	12/31/12	AW	30 - 150 %

Page 25 of 28 Ver 1

Client ID: A10-F18-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13000

Page 26 of 28 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: JA 12/26/12 16:30 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Rush Request: Standard Analyzed by:

see "By" below

80

\_aboratory Data

SDG ID: GBD12988

Phoenix ID: BD13001

Project ID: COMMERCIAL FOUNDRY Client ID: A10-F19-0-0.5

43369.82

P.O.#:

% TCMX

RL/ **PQL** Date/Time Parameter Result Units Βv Reference Percent Solid 98 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.33 mg/kg 0.33 12/31/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.33 AW mg/kg PCB-1262 ND 0.33 mg/kg 12/31/12 AW 3540C/8082 PCB-1268 ND 12/31/12 ΑW 3540C/8082 0.33 mg/kg 3540C/8082 0.33 12/31/12 AW Total PCBs 1.3 mg/kg **QA/QC Surrogates** % DCBP 89 % 12/31/12 AW 30 - 150 %

%

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12/31/12

ΑW

30 - 150 %

Client ID: A10-F19-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13001

Page 28 of 28 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

January 03, 2013

# QA/QC Data

LCS LCSD LCS

SDG I.D.: GBD12988

MSD

MS

RPD

Parameter	Blank	%	%	RPD	%	%	RPD	Limits	Limits
QA/QC Batch 217233, QC Sample No	o: BD12978 (BD12988, BD12989	9, BD12	.990, B	D12991	)				
Polychlorinated Biphenyls - S	Solid								
PCB-1016	ND	95	86	9.9				40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	96	87	9.8				40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	87	95	87	8.8				30 - 150	30
% TCMX (Surrogate Rec)	85	98	87	11.9				30 - 150	30
Comment:									
A LCS and LCS Duplicate were performe	ed instead of a matrix spike and matrix	ς spike d	uplicate						
QA/QC Batch 217388, QC Sample No BD12999, BD13000, BD13001)	o: BD13004 (BD12992, BD12993	3, BD12	.994, B	D12995	, BD12	996, B	D12997	, BD1299	8,
Polychlorinated Biphenyls - S	Solid								
PCB-1016	ND	80	79	1.3	81	76	6.4	40 - 140	30
PCB-1221	ND	00	,,	1.5	01	70	0.4	40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	81	82	1.2	82	78	5.0	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	90	89	89	0.0	87	87	0.0	30 - 150	30
% TCMX (Surrogate Rec)	84	85	84	1.2	85	78	8.6	30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria Intf - Interference Phyllis/Shiller, Laboratory Director

January 03, 2013

Thursday, January 03, 2013 Requested Criteria: None Sample Criteria Exceedences Report
GBD12988 - GZA-PCB

Page 1 of 1

State: CT

RL Analysis
SampNo Acode Phoenix Analyte Criteria Result RL Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

<sup>\*\*\*</sup> No Data to Display \*\*\*

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY **Project Number:** Laboratory Sample ID(s): BD12988, BD12989, BD12990, BD12991, BD12992, BD12993, BD12994, BD12995, BD12996, BD12997, BD12998, BD12999, BD13000, BD13001 **Sampling Date(s):** 12/26/2012 **RCP Methods Used:** 1311/1312 6010 7000 ☐ EPH ☐ TO15 7196 7470/7471 8081 ✔ 8082 8151 8260 8270 ETPH 9010/9012 ☐ VPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) Were all samples received by the laboratory in a condition consistent with that 2. ✓ Yes □ No described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No □ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ☐ Yes ✓ No Were these reporting limits met? 5b. ☐ Yes ☐ No **✓** NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No  $\square$  NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ☐ Yes ✓ No NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Thursday, January 03, 2013 Authorized Printed Name: Greg Lawrence Signature: Position: Assistant Lab Director



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

January 03, 2013

**SDG I.D.: GBD12988** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** <u>Au-ecd3 12/28/12-1 (BD12988, BD12989, BD12990, BD12991)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/28/2012

**Instrument:** Au-ecd35 12/31/12-1 (BD12992, BD12993, BD12994, BD12995, BD12996,

BD12997, BD12998, BD12999, BD13000, BD13001)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/31/2012

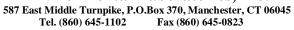
**QC Batch** 17233 12/27/12 (BD12988, BD12989, BD12990, BD12991)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

**QC** Comments: QC Batch 17388 12/28/12 (BD12992, BD12993, BD12994, BD12995, BD12996,

BD12997, BD12998, BD12999, BD13000, BD13001)







# **RCP Certification Report**

**January 03, 2013** 

**SDG I.D.: GBD12988** 

QC (Batch Specific)
Sample No: BD12978, QA/QC Batch: 217233
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Sample No: BD13004, QA/QC Batch: 217388
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**

The samples were received at 6C with cooling initiated. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

Coolety Vas Aro	7°c 63 or 4		ton (2529, com	43369.82			1400/201	THE STATE OF		Contract Con							-		-				Data Format	Excel	GIS/Key	☐ EQuIS	Data Package	Tier II Checklist	Phoenix Std Report	Other	* SURCHARGE APPLIES
Cool	/ Lemb		Email: Fines-Hitton @ 529, Com	Project P.O.	_ Phone #:	Fax #:				\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$													MA	MCP Certification	GW-7	☐ GW-3	S-1	S-2	MWRA eSMART	Ī .	octed: C
			726	Emmercial Faunday	You /	017				ON TOS														Direct Exposure RCP Cert (Residential)	V Protection		GB Mobility	Residential DEC	I/C DEC   Other		State where samples were collected:
	<b>CHAIN OF CUSTODY RECORD</b>	587 East Middle Tumpike, Manchester, CT 06040 mail: info@phoenixlabs.com Fax (860) 645-0823	Client Services (860) 645-8726	Commercia	,	of m Hotelon	1	NA.														-	Time: RI	No.	11:15 GW	134					
	HAIN OF CI	587 East Middle Tumpike, M Email: info@phoenixlabs.com	Client Servic	Project:	Report to:	_ Invoice to:	1	Rednest	S. P. S. Cook	Br	×	×	~	<b>,</b> ×	×	×	×	メ	×	×	メ		Date: T	1 pople	12121112	1334)	Turnaround:	1 Day*		Standard	* SURCHARGE APPLIES
	ပ	Emi				**	Jude	Date: 7-7/1C	WW=Waste Water O=Other	Date Time Sampled Sampled	1205 1505	1810	1520	1525	1530	1535	1540	1545	1550	1610	1615	7 1620	: .	0			·	ī	,		
			Inc.		Break Dr		n - Identification	-	Surface Water WW W=Wipe O=	Sample I Matrix Sa	by o	0	0	0	0	0	0	0	0	<u>,  </u>	0	0		mysed	N/		ons:				
			Laboratories, Inc.	624	SSS Windling	z-Kstenbury,	Client Sample - Information - Identification		Matrix Code: CDW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	Customer Sample Identification	F6-0-05	410-F7-0-05	A10-F8-0-05	40-F9-0-05	-F10-0-05	410-F11-0-05	410-F12-0-0.5	410-FB-0-GS	410-F14-0-05	A10-F15-0-0.5	A10-F16-0-05	410-F17-0-05	Accepted by	G2A F			cial Requirements or Regulations:				
	(		Environmental La	ner:		5	4.		de: C ing Water GW=Gr nent SL=Sludge		A10-	189 A10-	90 A10-1	9/ AB-	93 A10-	33 A10-	37 A10.		او	4	SS AIO-I	19 Aio-	ned by:	M	15/25			Concrete			
			Envir	Customer:	Address:		Sampler's	oigilature	Matrix Code: DW=Drinking SE=Sediment	PHOENIX USE ONLY SAMPLE #	86°C/	1296	100	129,	129	129	129	1299	1299	129	100	120,	Relinquished	1	Car	4	7=	)     			

\* SURCHARGE APPLIES W Email: James, Hortstein 6929, Com Phoenix Std Report Full Data Package\* Tier II Checklist Project P.O: 43369.82 Data Package Data Format

X
Excel

DA
PDF

GIS/Key EQUIS Coolant / Phik MA MCP Certification ☐ MWRA eSMART
☐ Other Temp/ Phone #: 7 Fax #: ☐ GW-3 ☐ GW-1 ☐ GW-2 Data Delivery: S-1 S-5 State where samples were collected: ☐ Residential DEC GW Protection SW Protection GB Mobility GA Mobility CT RCP Cert ☐ I/C DEC Other Founday RI Direct Exposure 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 (Residential) **CHAIN OF CUSTODY RECORD** Jim Horison Jim Hotelan Commercial Other . □ \* SURCHARGE APPLIES Time: Invoice to: Report to: Turnaround:
1 1 Day\*
2 Days\*
3 Days\*
Standard
Other Project: Analysis Request Date: Date Time Sampled Sampled 120/12/1025 Matrix Cobe:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water 1200 Noso Glastonbury CT 06033 W=Wipe O=Other 655 Winding Bruzik De Client Sample, Information - Identification Sample Matrix 0 なる 0 Environmental Laboratories, Inc. Comments (Special Requirements or Regulations: Accepted by: AIO-FIR-O-OS 410-F19-0-0.5 SE=Sediment SL=Sludge S=Soil/Solid Customer Sample のい らららがあ PHOENIX USE ONLY
SAMPLE # Relinguished b Customer: Address: Sampler's Signature

Cooler:/ Yes [



Thursday, January 03, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY

Sample ID#s: BD13002, BD13004 - BD13005, BD13008, BD13010 - BD13011, BD13014,

BD13016 - BD13017, BD13020 - BD13021

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301

CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007

ME Lab Registration #CT-007

NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63

VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOIL Collected by: 12/26/12 10:15 Location Code: **GZA-PCB** Received by: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

\_aboratory Data

SDG ID: GBD13002

Phoenix ID: BD13002

Project ID: COMMERCIAL FOUNDRY

Client ID: A12-S-1 2.5-2.75 FT

RI/

		KL/				
Parameter	Result	PQL Units		Date/Time	Ву	Reference
Percent Solid	87		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/28/12	BB/E/D	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.38	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.38	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.38	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.38	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	ND	0.38	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	ND	0.38	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.38	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.38	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.38	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	102		%	12/31/12	AW	30 - 150 %
% TCMX	82		%	12/31/12	AW	30 - 150 %

Page 1 of 22 Ver 1 Project ID: COMMERCIAL FOUNDRY Client ID: A12-S-1 2.5-2.75 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13002

Page 2 of 22 Ver 1



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 10:20 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

\_aboratory Data Phoenix ID: BD13004

SDG ID: GBD13002

Project ID: COMMERCIAL FOUNDRY

Client ID: A12-S-1 4.75-5 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 83 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.39 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.39 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.39 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.39 mg/kg ND 0.39 12/31/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.39 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.39 AW mg/kg PCB-1262 ND 0.39 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1268 0.39 mg/kg **QA/QC Surrogates** % DCBP 95 % 12/31/12 AW 30 - 150 % % TCMX 76 % 12/31/12 30 - 150 %

> Page 3 of 22 Ver 1

Client ID: A12-S-1 4.75-5 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13004

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 10:22 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD13002

Phoenix ID: BD13005

Project ID: COMMERCIAL FOUNDRY

Client ID: A12-S-1 5.75-6 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 84 % 12/27/12 E160.3 JL Extraction for PCB Completed BB/E/D SW3540C 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.39 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.39 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.39 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.39 mg/kg ND 0.39 12/31/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.39 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.39 ΑW mg/kg PCB-1262 ND 0.39 mg/kg 12/31/12 ΑW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1268 0.39 mg/kg **QA/QC Surrogates** % DCBP 100 % 12/31/12 AW 30 - 150 % % TCMX 86 % 12/31/12 30 - 150 %

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Client ID: A12-S-1 5.75-6 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13005

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

P.O.#:

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOILCollected by:12/26/1210:25Location Code:GZA-PCBReceived by:LB12/27/1213:41Rush Request:StandardAnalyzed by:analyzed by:analyzed by:analyzed by:

Rush Request: Standard Analyzed by: see "By" below

<u>Laboratory Data</u>

SDG ID: GBD13002

Phoenix ID: BD13008

Project ID: COMMERCIAL FOUNDRY

Client ID: A12-S-2 2.5-2.75 FT

RL/

		KL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	90		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/28/12	BB/E/D	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	94		%	12/31/12	AW	30 - 150 %
% TCMX	82		%	12/31/12	AW	30 - 150 %

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Project ID: COMMERCIAL FOUNDRY Client ID: A12-S-2 2.5-2.75 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13008

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 10:33 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

Rusii Request. Stand

P.O.#:

Laboratory Data

SDG ID: GBD13002

Phoenix ID: BD13010

Project ID: COMMERCIAL FOUNDRY

Client ID: A12-S-2 4.75-5 FT

RL/ **PQL** Date/Time Parameter Result Units Βv Reference Percent Solid 80 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.41 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.41 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.41 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.41 mg/kg 12/31/12 AW 3540C/8082 PCB-1248 0.41 mg/kg 3540C/8082 PCB-1254 ND 0.41 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.41 ΑW mg/kg PCB-1262 ND 0.41 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1268 ND 12/31/12 ΑW 3540C/8082 0.41 mg/kg 3540C/8082 12/31/12 AW Total PCBs 1 0.41 mg/kg **QA/QC Surrogates** % DCBP 93 % 12/31/12 AW 30 - 150 % 82 12/31/12 ΑW 30 - 150 % % TCMX %

Page 9 of 22 Ver 1

Project ID: COMMERCIAL FOUNDRY Client ID: A12-S-2 4.75-5 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13010

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 10:37 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

\_aboratory Data

SDG ID: GBD13002 Phoenix ID: BD13011

Project ID: COMMERCIAL FOUNDRY

Client ID: A12-S-2 5.75-6 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 85 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.39 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.39 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.39 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.39 mg/kg ND 0.39 12/31/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.39 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.39 ΑW mg/kg PCB-1262 ND 0.39 mg/kg 12/31/12 ΑW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1268 0.39 mg/kg **QA/QC Surrogates** % DCBP 104 % 12/31/12 AW 30 - 150 % % TCMX 79 % 12/31/12 30 - 150 %

> Page 11 of 22 Ver 1

Project ID: COMMERCIAL FOUNDRY

Client ID: A12-S-2 5.75-6 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13011

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOIL Collected by: 12/26/12 10:45 Location Code: **GZA-PCB** Received by: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

\_aboratory Data

SDG ID: GBD13002 Phoenix ID: BD13014

Project ID: COMMERCIAL FOUNDRY

Client ID: A12-S-3 2.5-2.75 FT

RI/

		KL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	89		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/28/12	BB/E/D	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.37	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	93		%	12/31/12	AW	30 - 150 %
% TCMX	88		%	12/31/12	AW	30 - 150 %

Page 13 of 22 Ver 1 Project ID: COMMERCIAL FOUNDRY Client ID: A12-S-3 2.5-2.75 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13014

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 10:50 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 see "By" below

Rush Request: Standard Analyzed by:

P.O.#:

SDG ID: GBD13002 \_aboratory Data

Phoenix ID: BD13016

Project ID: COMMERCIAL FOUNDRY

Client ID: A12-S-3 4.75-5 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 81 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.41 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.41 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.41 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.41 mg/kg ND 12/31/12 AW 3540C/8082 PCB-1248 0.41 mg/kg 3540C/8082 PCB-1254 ND 0.41 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.41 ΑW mg/kg PCB-1262 ND 0.41 mg/kg 12/31/12 ΑW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1268 0.41 mg/kg **QA/QC Surrogates** % DCBP 93 % 12/31/12 AW 30 - 150 % % TCMX 85 % 12/31/12 30 - 150 %

> Page 15 of 22 Ver 1

Project ID: COMMERCIAL FOUNDRY

Client ID: A12-S-3 4.75-5 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13016

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 10:52 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

\_aboratory Data

SDG ID: GBD13002

Phoenix ID: BD13017

Project ID: COMMERCIAL FOUNDRY

Client ID: A12-S-3 5.75-6 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 85 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.38 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.38 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.38 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.38 mg/kg ND 0.38 12/31/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.38 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.38 ΑW mg/kg PCB-1262 ND 0.38 mg/kg 12/31/12 ΑW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1268 0.38 mg/kg **QA/QC Surrogates** % DCBP 94 % 12/31/12 AW 30 - 150 % % TCMX 79 % 12/31/12 30 - 150 %

> Page 17 of 22 Ver 1

Project ID: COMMERCIAL FOUNDRY

Client ID: A12-S-3 5.75-6 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13017

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**Analysis Report** 

P.O.#:

Project ID:

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

SDG ID: GBD13002

Phoenix ID: BD13020

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOILCollected by:12/26/1211:00Location Code:GZA-PCBReceived by:LB12/27/1213:41

Rush Request: Standard Analyzed by: see "By" below

<u>Laboratory Data</u>

COMMERCIAL FOUNDRY

Client ID: A12-S-4 2.5-2.75 FT

-

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	95		%	12/27/12	JL	E160.3
Extraction for PCB	Completed			12/28/12	BB/E/D	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1221	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1232	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1242	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1248	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1254	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1260	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1262	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
PCB-1268	ND	0.34	mg/kg	12/31/12	AW	3540C/8082
QA/QC Surrogates						
% DCBP	98		%	12/31/12	AW	30 - 150 %
% TCMX	74		%	12/31/12	AW	30 - 150 %

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Project ID: COMMERCIAL FOUNDRY Client ID: A12-S-4 2.5-2.75 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13020

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**Analysis Report** 

January 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOILCollected by:12/26/1211:03Location Code:GZA-PCBReceived by:LB12/27/1213:41

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD13002

Phoenix ID: BD13021

Project ID: COMMERCIAL FOUNDRY

Client ID: A12-S-4 3.5-3.75 FT

RL/

		KL/						
Parameter	Result	PQL	Units	Date/Time	Ву	Reference		
Percent Solid	95		%	12/27/12	JL	E160.3		
Extraction for PCB	Completed			12/28/12	BB/E/D	SW3540C		
PCB (Soxhlet)								
PCB-1016	ND	0.34	mg/kg	12/31/12	AW	3540C/8082		
PCB-1221	ND	0.34	mg/kg	12/31/12	AW	3540C/8082		
PCB-1232	ND	0.34	mg/kg	12/31/12	AW	3540C/8082		
PCB-1242	ND	0.34	mg/kg	12/31/12	AW	3540C/8082		
PCB-1248	ND	0.34	mg/kg	12/31/12	AW	3540C/8082		
PCB-1254	ND	0.34	mg/kg	12/31/12	AW	3540C/8082		
PCB-1260	ND	0.34	mg/kg	12/31/12	AW	3540C/8082		
PCB-1262	ND	0.34	mg/kg	12/31/12	AW	3540C/8082		
PCB-1268	ND	0.34	mg/kg	12/31/12	AW	3540C/8082		
QA/QC Surrogates								
% DCBP	90		%	12/31/12	AW	30 - 150 %		
% TCMX	77		%	12/31/12	AW	30 - 150 %		

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Project ID: COMMERCIAL FOUNDRY Client ID: A12-S-4 3.5-3.75 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13021

Page 22 of 22 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

January 03, 2013

### QA/QC Data

SDG I.D.: GBD13002

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits				
QA/QC Batch 217388, QC Sample No: BD13004 (BD13002, BD13004, BD13005, BD13008, BD13010, BD13011, BD13014, BD130													
BD13016, BD13017, BD1	*												
Polychlorinated Biph	<u>ienyls - Soil</u>												
PCB-1016	ND	80	79	1.3	81	76	6.4	40 - 140	30				
PCB-1221	ND							40 - 140	30				
PCB-1232	ND							40 - 140	30				
PCB-1242	ND							40 - 140	30				
PCB-1248	ND							40 - 140	30				
PCB-1254	ND							40 - 140	30				
PCB-1260	ND	81	82	1.2	82	78	5.0	40 - 140	30				
PCB-1262	ND							40 - 140	30				
PCB-1268	ND							40 - 140	30				
% DCBP (Surrogate Rec)	90	89	89	0.0	87	87	0.0	30 - 150	30				
% TCMX (Surrogate Rec)	84	85	84	1.2	85	78	8.6	30 - 150	30				
QA/QC Batch 217389, QC	Sample No: BD13021 (BD	13021)											
Polychlorinated Biph	<u> 1enyls - Soil</u>												
PCB-1016	ND	76	79	3.9	78	78	0.0	40 - 140	30				
PCB-1221	ND							40 - 140	30				
PCB-1232	ND							40 - 140	30				
PCB-1242	ND							40 - 140	30				
PCB-1248	ND							40 - 140	30				
PCB-1254	ND							40 - 140	30				
PCB-1260	ND	87	86	1.2	84	87	3.5	40 - 140	30				
PCB-1262	ND							40 - 140	30				
PCB-1268	ND							40 - 140	30				
% DCBP (Surrogate Rec)	90	95	93	2.1	91	94	3.2	30 - 150	30				
% TCMX (Surrogate Rec)	77	79	81	2.5	82	82	0.0	30 - 150	30				

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

January 03, 2013

Thursday, January 03, 2013 Requested Criteria: None

# **Sample Criteria Exceedences Report**

**GBD13002 - GZA-PCB** 

State: CT RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RLCriteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

### Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY **Project Number:** Laboratory Sample ID(s): BD13002, BD13003, BD13004, BD13005, BD13006, BD13007, BD13008, BD13009, BD13010, BD13011, BD13012, BD13013, BD13014, BD13015, BD13016, BD13017, BD13018, BD13019, BD13020, BD13021, BD13022, BD13023, BD13024, BD13025 **Sampling Date(s):** 12/26/2012 **RCP Methods Used:** ☐ 1311/1312
☐ 6010 7000 7196 7470/7471 8081 ☐ EPH TO15 **✓** 8082 8270 9010/9012 □ VPH 8151 8260 ETPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) 2. Were all samples received by the laboratory in a condition consistent with that ✓ Yes No. described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No □ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ☐ Yes ✓ No Were these reporting limits met? 5b. **✓** NA ☐ Yes ☐ No For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes No □ NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ✓ Yes □ No □ NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Thursday, January 03, 2013 Authorized Printed Name: Greg Lawrence Signature: Position: Assistant Lab Director



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

January 03, 2013

**SDG I.D.: GBD13002** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd3 12/31/12-1 (BD13002, BD13004, BD13005, BD13008, BD13017,

BD13020, BD13021)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/31/2012

**Instrument:** Au-ecd35 12/31/12-1 (BD13014, BD13016)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/31/2012

**Instrument:** Au-ecd6 12/31/12-1 (BD13010, BD13011)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

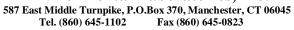
Printed Name Adam Werner Position: Chemist 12/31/2012

**QC Comments:** QC Batch 17388 12/28/12 (BD13002, BD13004, BD13005, BD13008, BD13010,

BD13011, BD13014, BD13016, BD13017, BD13020)

**QC Comments:** QC Batch 17389 12/28/12 (BD13021)







# **RCP** Certification Report

January 03, 2013

**SDG I.D.: GBD13002** 

QC (Site Specific)
Sample No: BD13004, QA/QC Batch: 217388
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Sample No: BD13021, QA/QC Batch: 217389
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.
Temperature Narration

## The complex were received at 6C with earling initiate

The samples were received at 6C with cooling initiated. (Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes NO Cooler October NO Cooler NO COO	°C Pg / of 6	(69 Fq. (pm)			840 286 890U		tuggi to str	1400/1400/24/	605 (4052)	TO BE STATE OF THE PARTY OF THE		14.7	-											Excel		EQUIS	Data Package	☐ Tier II Checklist ☐ Full Data Package*	Phoenix Std Report	* SURCHARGE APPLIES
Cools	Ten	Data Delivery:    Fax #:		Project P.O:	Phone #: <b>%</b>					\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		-											WA Display	MCP Certification			-S- □ [	S-2 S-3 □□	☐ MWRA eSMART ☐ Other	llected: CS
		23		maky 43369.12	Juffor					100														Ulrect Exposure   X RCP Cert (Residential)   The Manageries	<u> </u>	<u>                                     </u>	GB Mobility	Residential DEC		State where samples were collected:
	<b>CHAIN OF CUSTODY RECORD</b>	587 East Middle Turnpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-082 Client Services (860) 645-8726		Project: Commercial Founday	Report to: James Huffer Invoice to: CASA		Analysis Request	\	? <b>```\$</b> \?	A ST		×	×		×	×		×	<b>Y</b>		X	×	e: Time: R	1/15 1/15	°□ 5/:// 2//22/2	° □ 1/1/1   e/eee	rnaround:	1 Day*	3 Days*	APPLIES
	CHA	587 E Email: ir C	The state of the s		Jr. W.		Incation Date: $\sqrt{2/u/x}$		Vater WW=Waste Water lipe_O=Other	ole Date Time	2	1 1018	( 020/	1 220/	hZoj	9201	( 520)	<i>tw</i>	/033 >	(034)	1035	3°01 >	Da	7			<u>1</u>		1 - 45	
		PHOENIX STATES	ravolatories, Inc.		Injudio Book		Client Sample - Information Adentification		Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water  SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	Customer Sample Sample Identification Matrix	1 (\s;	A12-5-1 (35-375)	A12.5.1 (4.75-5')	A12-5-1 (5.35-6)	A12-5-1 (6.75-7)	A12.5.1 (7.75-8")	412-5-2(2,5-2.351)	A12-5-2 (5.5-3,35")	A12-5-2 (4.75-5')	2-	7	2.	Accepted by:	A Grainson		)   	Comments Special Requirements or Regulations:	ar nota		
		PHOE	Environmental	Customer: 674	Address: 655	,	Sampler's Signature		Matrix Code:  DW=Drinking Water GW=Gr SE=Sediment SL=Sludge	PHOENIX USE ONLY SAMPLE #	1300 A A12	15005 AIZ	13007 An	13005 AIR	1300b AII	T	13008 AIZ	13005 AIR	13010 AIZ		_a	13015 A12-S	Relinduished by	Lullen or	624 F. 20 X		Comments Special Ret	Freeze Samples o		

Cooper: Yes | No | \* SURCHARGE APPLIES Phoenix Std Report Full Data Package\* Tier II Checklist Final: James hutten & 9 Eg. cm 860 286 8900 Data Package Data Format

Excel

PDF

GIS/Key other \_\_ EQuIS MA MCP Certification ☐ MWRA eSMART Project P.O: Phone #: Fax #: ☐ GW-2 Other ☐ GW-3 Data Delivery: ☐ 6W-1 □ S-1 S-2 State where samples were collected: Residential DEC SW Protection ☐ GW Protection GA Mobility ☐ GB Mobility CT XX RCP Cert ☐ I/C DEC Other 43369.82 Ri Direct Exposure (Residential) 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 CHAIN OF CUSTODY RECORD somered Founday J.m Thitter Other ©W □ BARRA 62M \* SURCHARGE APPLIES Time: Invoice to: Report to: 3 Days\*
Standard
Other Project: Analysis Request 2 Days\* ☐ 1 Day\* ☐ 2 Days\* Turnaround: Date: Sampled フロte: /2/2//ン 2/24/12 1045 1050 450% /०५४ 555 1058 013 203 3 203 ころ 133 DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water Date Sampled W=Wipe 0=Other Client Sample - Jaformation - Identification 1055 Windin Browk Drive CT 06433 Sample Matrix Environmental Laboratories, Inc. Comment Special Requirements or Regulations: Accepted by: 412-5-3 (2.5-2.73) 412-5-3 (3.5-3.73 A12-5-3(575-6) 412-5-3(2.75-8) A12-5-4(2.5-2.95) 412-2-2 (3-75-1) A12-5-4(7.359) A12-5-3(6.75-7) A12-5-4(5,5-3.光) 412-5-4(475-6) A12-5-39-16-5 412-5-49.25-5 SE=Sediment SL=Sludge S=Soil/Solid Customer Sample Identification Flaston barry Freeze Samprs on hold PHOENIX USE ONLY Relinguished by 3030 Customer: 1300 Address:  $\varphi^2$ Sampler's Signature



Friday, January 04, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY 43369.82

Sample ID#s: BD13026 - BD13027, BD13032 - BD13033, BD13038, BD13040, BD13042,

BD13044, BD13046, BD13048 - BD13049

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 11:15 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD13026

Phoenix ID: BD13026

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A12-S-5 2.5-2.75 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 85 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.38 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.38 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.38 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.38 mg/kg ND 12/31/12 AW 3540C/8082 PCB-1248 0.38 mg/kg 3540C/8082 PCB-1254 ND 0.38 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.38 ΑW mg/kg PCB-1262 ND 0.38 mg/kg 12/31/12 ΑW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1268 0.38 mg/kg **QA/QC Surrogates** % DCBP 104 % 12/31/12 AW 30 - 150 % % TCMX 86 % 12/31/12 30 - 150 %

Page 1 of 22 Ver 1

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A12-S-5 2.5-2.75 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13026

Page 2 of 22 Ver 1



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**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 11:18 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD13026

Phoenix ID: BD13027

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A12-S-5 3.5-3.75 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 79 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.42 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.42 mg/kg 12/31/12 AW 3540C/8082 ND 0.42 12/31/12 ΑW 3540C/8082 PCB-1232 mg/kg ND 0.42 12/31/12 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.42 12/31/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.42 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.42 ΑW mg/kg PCB-1262 ND 0.42 mg/kg 12/31/12 ΑW 3540C/8082 ND 0.42 12/31/12 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP 92 % 12/31/12 AW 30 - 150 % 78 % 12/31/12 30 - 150 % % TCMX

> Page 3 of 22 Ver 1

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A12-S-5 3.5-3.75 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13027

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 11:30 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD13026

Phoenix ID: BD13032

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A12-S-6 2.5-2.75 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 93 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.35 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.35 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.35 mg/kg ND 0.35 12/31/12 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.35 12/31/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.35 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.35 ΑW mg/kg PCB-1262 ND 0.35 mg/kg 12/31/12 ΑW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1268 0.35 mg/kg **QA/QC Surrogates** % DCBP 95 % 12/31/12 AW 30 - 150 % 80 % 12/31/12 30 - 150 % % TCMX

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Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A12-S-6 2.5-2.75 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13032

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**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 11:33 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD13026

Phoenix ID: BD13033

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A12-S-6 3.5-3.75 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 84 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.39 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.39 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.39 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.39 mg/kg ND 0.39 12/31/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.39 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.39 ΑW mg/kg PCB-1262 ND 0.39 mg/kg 12/31/12 ΑW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1268 0.39 mg/kg **QA/QC Surrogates** % DCBP 98 % 12/31/12 AW 30 - 150 % 86 % 12/31/12 30 - 150 % % TCMX

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Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A12-S-6 3.5-3.75 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13033

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**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 10:45 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 see "By" below

Rush Request: Standard Analyzed by:

P.O.#:

SDG ID: GBD13026 **Laboratory Data** 

Phoenix ID: BD13038

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: EXT-1 0.5-0.75

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 79 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.41 mg/kg 01/02/13 ΑW 3540C/8082 PCB-1221 ND 0.41 mg/kg 01/02/13 AW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1232 0.41 mg/kg ND 01/02/13 ΑW 3540C/8082 PCB-1242 0.41 mg/kg ND 01/02/13 AW 3540C/8082 PCB-1248 0.41 mg/kg 3540C/8082 PCB-1254 ND 0.41 mg/kg 01/02/13 AW 3540C/8082 PCB-1260 ND 0.41 01/02/13 ΑW mg/kg PCB-1262 ND 0.41 mg/kg 01/02/13 ΑW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1268 0.41 mg/kg **QA/QC Surrogates** % DCBP 100 % 01/02/13 AW 30 - 150 % % TCMX 84 % 01/02/13 30 - 150 %

> Page 9 of 22 Ver 1

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: EXT-1 0.5-0.75

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13038

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**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 11:00 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

SDG ID: GBD13026 **Laboratory Data** 

Phoenix ID: BD13040

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: EXT-2 0.5-0.75

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid % 12/27/12 E160.3 89 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.37 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.37 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.37 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.37 mg/kg ND 12/31/12 AW 3540C/8082 PCB-1248 0.37 mg/kg 3540C/8082 PCB-1254 ND 0.37 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.37 ΑW mg/kg PCB-1262 ND 0.37 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1268 0.37 mg/kg **QA/QC Surrogates** % DCBP 103 % 12/31/12 AW 30 - 150 % % TCMX 98 % 12/31/12 30 - 150 %

> Page 11 of 22 Ver 1

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: EXT-2 0.5-0.75

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13040

Page 12 of 22 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 11:10 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD13026

Phoenix ID: BD13042

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: EXT-3 0.5-0.75

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 87 % 12/27/12 E160.3 JL Extraction for PCB Completed BB/E/D SW3540C 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.37 mg/kg 01/02/13 ΑW 3540C/8082 PCB-1221 ND 0.37 mg/kg 01/02/13 AW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1232 0.37 mg/kg PCB-1242 ND 01/02/13 ΑW 3540C/8082 0.37 mg/kg ND 01/02/13 AW 3540C/8082 PCB-1248 0.37 mg/kg 3540C/8082 PCB-1254 ND 0.37 mg/kg 01/02/13 AW 3540C/8082 PCB-1260 ND 0.37 01/02/13 AW mg/kg PCB-1262 ND 0.37 mg/kg 01/02/13 AW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1268 0.37 mg/kg **QA/QC Surrogates** % DCBP 96 % 01/02/13 AW 30 - 150 % % TCMX 86 % 01/02/13 30 - 150 %

> Page 13 of 22 Ver 1

Client ID: EXT-3 0.5-0.75

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13042

Page 14 of 22 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 11:18 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD13026

Phoenix ID: BD13044

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: EXT-4 0.5-0.75

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 83 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.4 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.4 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.4 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.4 mg/kg ND 12/31/12 AW 3540C/8082 PCB-1248 0.4 mg/kg 3540C/8082 PCB-1254 ND 0.4 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.4 ΑW mg/kg PCB-1262 ND 0.4 mg/kg 12/31/12 ΑW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1268 0.4 mg/kg **QA/QC Surrogates** % DCBP 106 % 12/31/12 AW 30 - 150 % % TCMX 106 % 12/31/12 30 - 150 %

> Page 15 of 22 Ver 1

Client ID: EXT-4 0.5-0.75

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13044

Page 16 of 22 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/26/12 11:25 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD13026 Phoenix ID: BD13046

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: EXT-5 0.5-0.75

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 83 % 12/27/12 E160.3 JL Extraction for PCB BB/E/D SW3540C Completed 12/28/12 PCB (Soxhlet) PCB-1016 ND 0.39 mg/kg 01/02/13 ΑW 3540C/8082 PCB-1221 ND 0.39 mg/kg 01/02/13 AW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1232 0.39 mg/kg ND 01/02/13 ΑW 3540C/8082 PCB-1242 0.39 mg/kg 01/02/13 AW 3540C/8082 PCB-1248 0.39 mg/kg 3540C/8082 PCB-1254 0.39 mg/kg 01/02/13 AW 3540C/8082 PCB-1260 ND 0.39 01/02/13 ΑW mg/kg PCB-1262 ND 0.39 mg/kg 01/02/13 ΑW 3540C/8082 PCB-1268 ND ΑW 3540C/8082 0.39 mg/kg 01/02/13 3540C/8082 0.39 01/02/13 AW Total PCBs 2.6 mg/kg **QA/QC Surrogates** % DCBP 88 % 01/02/13 AW 30 - 150 % 86 01/02/13 ΑW 30 - 150 % % TCMX %

> Page 17 of 22 Ver 1

Client ID: EXT-5 0.5-0.75

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13046

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: 12/26/12 11:40 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD13026

Phoenix ID: BD13048

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: **EXT-CATCH BASIN** 

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 64 % 12/27/12 E160.3 JL Extraction for PCB Completed 12/31/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.5 mg/kg 01/02/13 ΑW 3540C/8082 PCB-1221 ND 0.5 mg/kg 01/02/13 AW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1232 0.5 mg/kg ND 01/02/13 ΑW 3540C/8082 PCB-1242 0.5 mg/kg 01/02/13 AW 3540C/8082 PCB-1248 0.5 mg/kg 3540C/8082 PCB-1254 0.5 mg/kg 01/02/13 AW 3540C/8082 PCB-1260 ND 0.5 01/02/13 ΑW mg/kg PCB-1262 ND 0.5 mg/kg 01/02/13 ΑW 3540C/8082 PCB-1268 ND ΑW 3540C/8082 0.5 mg/kg 01/02/13 3540C/8082 2.2 0.5 01/02/13 AW Total PCBs mg/kg **QA/QC Surrogates** % DCBP 98 % 01/02/13 AW 30 - 150 % 92 01/02/13 ΑW 30 - 150 % % TCMX %

> Page 19 of 22 Ver 1

Client ID: EXT-CATCH BASIN

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13048

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Page 20 of 22 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 8:45 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD13026

Phoenix ID: BD13049

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-14 2.25-25

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 82 % 12/27/12 E160.3 JL Extraction for PCB Completed 12/28/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.4 mg/kg 01/02/13 ΑW 3540C/8082 PCB-1221 ND 0.4 mg/kg 01/02/13 AW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1232 0.4 mg/kg ND 01/02/13 ΑW 3540C/8082 PCB-1242 0.4 mg/kg ND 01/02/13 AW 3540C/8082 PCB-1248 0.4 mg/kg 3540C/8082 PCB-1254 ND 0.4 mg/kg 01/02/13 AW 3540C/8082 PCB-1260 ND 0.4 01/02/13 ΑW mg/kg PCB-1262 ND 0.4 mg/kg 01/02/13 ΑW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1268 0.4 mg/kg **QA/QC Surrogates** % DCBP 95 % 01/02/13 AW 30 - 150 % % TCMX 83 % 01/02/13 30 - 150 %

> Page 21 of 22 Ver 1

Client ID: A14-S-14 2.25-25

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13049

Page 22 of 22 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

Parameter

PCB-1016

PCB-1221

PCB-1232

PCB-1242

PCB-1248

PCB-1254

PCB-1260

PCB-1262

PCB-1268

PCB-1016

PCB-1221

PCB-1232

PCB-1242

PCB-1248

PCB-1254

PCB-1260

PCB-1262

PCB-1268

PCB-1016

PCB-1221

PCB-1232

PCB-1242

PCB-1248

PCB-1254

PCB-1260

PCB-1262

PCB-1268

% DCBP (Surrogate Rec)

% TCMX (Surrogate Rec)

% DCBP (Surrogate Rec)

% TCMX (Surrogate Rec)

ND

ND

ND

95

71

% DCBP (Surrogate Rec)

% TCMX (Surrogate Rec)

BD13044, BD13046)

January 04, 2013

### QA/QC Data

SDG I.D.: GBD13026 LCS LCSD LCS MS MSD MS Rec **RPD** Rlank **RPD RPD** Limits Limits % % % % QA/QC Batch 217389, QC Sample No: BD13021 (BD13026, BD13027, BD13032, BD13033, BD13038, BD13040, BD13042, Polychlorinated Biphenyls - Soil 76 79 3.9 78 78 0.0 40 - 140 30 ND 87 86 1.2 84 87 3.5 40 - 140 30 ND 40 - 140 30 ND 40 - 140 30 90 95 93 2.1 91 94 3.2 30 - 150 30 77 79 81 2.5 82 82 0.0 30 - 150 30 QA/QC Batch 217397, QC Sample No: BD13052 (BD13049) Polychlorinated Biphenyls - Soil 71 69 2.9 40 - 140 30 ND 96 89 7.6 40 - 140 30 ND 40 - 140 30 ND 40 - 140 30 100 108 104 3.8 30 - 150 30 99 104 99 4.9 30 - 150 30 QA/QC Batch 217439, QC Sample No: BD13873 (BD13048) Polychlorinated Biphenyls - Soil 70 8.2 73 76 40 - 140 30 ND 40 - 140 30

76

92

79

79

97

75

3.9

5.3

5.2

83

96

80

30

30

30

30

30

40 - 140

40 - 140

40 - 140

30 - 150

30 - 150

## QA/QC Data

SDG I.D.: GBD13026

% RPD % LCS LCSD LCS MS MSD MS Rec Blank % RPD % % RPD Limits Limits % Parameter

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

January 04, 2013

Friday, January 04, 2013

**Sample Criteria Exceedences Report** 

Requested Criteria: None **GBD13026 - GZA-PCB** 

State: CT

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

## Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY 4336 **Project Number:** Laboratory Sample ID(s): BD13026, BD13027, BD13028, BD13029, BD13030, BD13031, BD13032, BD13033, BD13034, BD13035, BD13036, BD13037, BD13038, BD13039, BD13040, BD13041, BD13042, BD13043, BD13044, BD13045, BD13046, BD13047, BD13048, BD13049 **Sampling Date(s):** 12/26/2012 **RCP Methods Used:** 6010 1311/1312 7000 7196 7470/7471 8081 ☐ EPH TO15 **✓** 8082 8270 9010/9012 □ VPH 8151 8260 ETPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) 2. Were all samples received by the laboratory in a condition consistent with that ✓ Yes No. described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No □ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? Yes V No Were these reporting limits met? 5b. **✓** NA ☐ Yes ☐ No For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No □ NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ☐ Yes 🗹 No □ NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Friday, January 04, 2013 Authorized Printed Name: Maryam Taylor Signature: Position: Project Manager







# **RCP Certification Report**

January 04, 2013

**SDG I.D.: GBD13026** 

### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd3 12/31/12-1 (BD13026, BD13027, BD13032, BD13033)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 12/31/2012

**Instrument:** Au-ecd3 01/02/13-1 (BD13038, BD13042, BD13046, BD13049)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 1/2/2013

**Instrument:** Au-ecd35 01/02/13-1 (BD13048)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/2/2013

**Instrument:** Au-ecd6 12/31/12-1 (BD13040, BD13044)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none









# **RCP Certification Report**

January 04, 2013

**SDG I.D.: GBD13026** 

Printed Name Adam Werner Position: Chemist 12/31/2012

**QC** Batch 17389 12/28/12 (BD13026, BD13027, BD13032, BD13033, BD13038,

BD13040, BD13042, BD13044, BD13046)

**QC Comments:** QC Batch 17397 12/28/12 (BD13049)

**QC Comments:** QC Batch 17439 12/28/12 (BD13048)

#### QC (Batch Specific)

----- Sample No: BD13021, QA/QC Batch: 217389 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

----- Sample No: BD13052, QA/QC Batch: 217397 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

------ Sample No: BD13873, QA/QC Batch: 217439 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

### **Temperature Narration**

The samples were received at 6C with cooling initiated. (Note acceptance criteria is above freezing up to 6°C)



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

January 04, 2013

**SDG I.D.: GBD13026** 

\* SURCHARGE APPLIES Phoenix Std Report Full Data Package\* Tier II Checklist M Email: Janes, higher egga.com Data Package 860 286 8900 Excel
R PDF
GIS/Key Data Format Other Other ☐ EQuIS °C Pg. Coolapt: JHK MA MCP Certification MWRA eSMART Project P.O: Phone #: Fax #: T ☐ GW-3 ☐ GW-1 Other ☐ GW-2 S-1 S-2 Data Delivery: State where samples were collected: Fax#: Residential DEC SW Protection ☐ GW Protection GB Mobility ☐ GA Mobility CT RCP Cert ☐ I/C DEC Other 43369.82 RI Direct Exposure 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 (Residential) **CHAIN OF CUSTODY RECORD** Commercial Forman Other M<sub>O</sub> Allers Drawally 1217 \* SURCHARGE APPLIES Time: Report to: invoice to: Project: 3 Days\*
X Standard
Other Analysis Request 2 Days\* Turnaround: 1/24/11 Date: Date: 12/26/12 Sampled 125 1120 125 130 270 Time 1.33 1.38 7 アグラ 123 **5**2 2/2/14/15/2/ DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other Date Sampled Client Sample - Information - Identification 655 Windin Brook Drive Sample Matrix 06.133 Environmental Laboratories, Inc. 621 my Commetts, free day rements or Regulations: 417-5-6-8-6 A12-5-64.75-7) A (2-5-6 (7.75-8) Accepted by: A12-5-6 (3.5-375) 47.5-6 14.75.51 A12-5-5(3:5-3:45) A12-5-6(2.5-2.36) 412-5-5(10 15-4) 412-5-5(205-27) A12-5-5(5:45-6) A12-5-5(4.75-5) A12.5-5 (7.15-8) Customer Sample FACEZE SAMPLES ON HOW Flastonbury CT Identification 50 G24 PHOENIX USE ONLY Customer: 50,50 Address: Matrix Code: SAMPLE # Q Signature Sampler's\*\* 303

Cooler:

2 Z A Email: James, Kuthan Egga.com ō Data Format

Excel

R
PDF

GIS/Key Phone #: 860 286 8900 ☐ EQuIS Other 3 MA MCP Certification Project P.O: Fax #: □ GW-3 ☐ GW-1 ☐ GW-2 □ S-1 Data Delivery: ☐ Fax #: ☐ GW Protection SW Protection GB Mobility GA Mobility KCP Cert GE 43869.82 RI Direct Exposure 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 (Residential) CHAIN OF CUSTODY RECORD Jin Huft Other @ Q Project: Commercal Founday 子がら 17/5 Time: Invoice to: Report to: Date: Sampled 1130 Date: 12/2/12 120 223 08€ € Time 2/2/12/12/5/2/S 1055 るこ (110 1 16 シンスニ 132 1 Matrix Code:

DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sequiment SL=Studge S=Soil/Solid W=Wipe O=Other Date Sampled Client Sample - Information - Identification Sink Dix Sample Matrix UT 06033 5xt- (2to 125% | SE ながかる Environmental Laboratories, Inc. Comments, Spenal Requirements or Regulations: A14-5-14(2,25-25) Accepted by: Ext-1(0,500) 0.5-0.75 0.5-0.75 0.5-d.X 2x5-(0.5-0.FS) 845 (1.35-2) (2-5(-1))[2-32.1] 2-X-3 (1.75-2) Customer Sample 255 Windry Identification -lastenbur 14-47 なから 5x+-4 24-5 99A 3 PHOENIX USE ONLY Customer: Address: SAMPLE # Sampler's Signature

\* SURCHARGE APPLIES

Phoenix Std Report Full Data Package\* Tier II Checklist

MWRA eSMART

S-5

Residential DEC

☐ I/C DEC

Other

Other

State where samples were collected:

\* SURCHARGE APPLIES

Standard Other

3 Days\*

Turnaround:

Freeze Samples on how

Data Package



Friday, January 04, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY 43369.82

Sample ID#s: BD13050 - BD13053, BD13056, BD13059, BD13062

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 11:45 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD13050

Phoenix ID: BD13050

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-15 2.75-3 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 85 % 12/27/12 E160.3 JL Extraction for PCB Completed 12/28/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.39 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.39 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.39 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.39 mg/kg 12/31/12 AW 3540C/8082 PCB-1248 0.39 mg/kg 3540C/8082 PCB-1254 ND 0.39 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.39 ΑW mg/kg PCB-1262 ND 0.39 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1268 ND 12/31/12 ΑW 3540C/8082 0.39 mg/kg 3540C/8082 0.39 12/31/12 AW Total PCBs 1.9 mg/kg **QA/QC Surrogates** % DCBP 92 % 12/31/12 AW 30 - 150 % 86 12/31/12 ΑW 30 - 150 % % TCMX %

> Page 1 of 14 Ver 1

Client ID: A14-S-15 2.75-3 FT

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13050

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOILCollected by:12/26/1211:50Location Code:GZA-PCBReceived by:LB12/27/1213:41

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD13050

Phoenix ID: BD13051

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-16 3-3.25 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid % 12/27/12 E160.3 88 JL Extraction for PCB Completed 12/28/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 1.8 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 1.8 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 1.8 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 1.8 mg/kg 12/31/12 AW 3540C/8082 PCB-1248 1.8 mg/kg 3540C/8082 PCB-1254 ND 1.8 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 1.8 ΑW mg/kg PCB-1262 ND 1.8 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1268 ND 12/31/12 ΑW 3540C/8082 1.8 mg/kg 3540C/8082 24 12/31/12 AW Total PCBs 1.8 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 12/31/12 AW 30 - 150 % Diluted Out 12/31/12 ΑW 30 - 150 % % TCMX %

Page 3 of 14 Ver 1

Client ID: A14-S-16 3-3.25 FT

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13051

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 11:55 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 see "By" below

Rush Request: Standard Analyzed by:

P.O.#:

**Laboratory Data** 

SDG ID: GBD13050

Phoenix ID: BD13052

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-17 3.75-4 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 87 % 12/27/12 E160.3 JL Extraction for PCB Completed 12/28/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.37 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.37 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.37 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.37 mg/kg 12/31/12 AW 3540C/8082 PCB-1248 0.37 mg/kg 3540C/8082 PCB-1254 ND 0.37 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.37 AW mg/kg PCB-1262 ND 0.37 mg/kg 12/31/12 AW 3540C/8082 PCB-1268 ND 12/31/12 ΑW 3540C/8082 0.37 mg/kg 3540C/8082 2.9 0.37 12/31/12 AW Total PCBs mg/kg **QA/QC Surrogates** % DCBP 110 % 12/31/12 AW 30 - 150 % 96 12/31/12 ΑW 30 - 150 % % TCMX %

> Page 5 of 14 Ver 1

Client ID: A14-S-17 3.75-4 FT

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13052

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 12:20 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Standard Analyzed by: see "By" below

Rush Request:

P.O.#:

**Laboratory Data** 

SDG ID: GBD13050

Phoenix ID: BD13053

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-18 4-4.25 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 85 % 12/27/12 E160.3 JL Extraction for PCB Completed 12/28/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.39 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.39 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.39 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.39 mg/kg ND 0.39 12/31/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.39 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.39 ΑW mg/kg PCB-1262 ND 0.39 mg/kg 12/31/12 ΑW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1268 0.39 mg/kg **QA/QC Surrogates** % DCBP 102 % 12/31/12 AW 30 - 150 % % TCMX 67 % 12/31/12 30 - 150 %

> Page 7 of 14 Ver 1

Client ID: A14-S-18 4-4.25 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phoenix I.D.: BD13053

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**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOILCollected by:12/26/1212:45Location Code:GZA-PCBReceived by:LB12/27/1213:41

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data SDG ID: GBD13050

Phoenix ID: BD13056

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-19 4-4.25 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 81 % 12/27/12 E160.3 JL Extraction for PCB Completed 12/31/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.41 mg/kg 01/02/13 ΑW 3540C/8082 PCB-1221 ND 0.41 mg/kg 01/02/13 AW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1232 0.41 mg/kg ND 01/02/13 ΑW 3540C/8082 PCB-1242 0.41 mg/kg ND 01/02/13 AW 3540C/8082 PCB-1248 0.41 mg/kg 3540C/8082 PCB-1254 ND 0.41 mg/kg 01/02/13 AW 3540C/8082 PCB-1260 ND 0.41 01/02/13 ΑW mg/kg PCB-1262 ND 0.41 mg/kg 01/02/13 ΑW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1268 0.41 mg/kg **QA/QC Surrogates** % DCBP 88 % 01/02/13 AW 30 - 150 % % TCMX 86 % 01/02/13 30 - 150 %

Page 9 of 14 Ver 1

Client ID: A14-S-19 4-4.25 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13056

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**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 12:52 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD13050

Phoenix ID: BD13059

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-20 4-4.25 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 80 % 12/27/12 E160.3 JL Extraction for PCB Completed 12/28/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.42 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.42 mg/kg 12/31/12 AW 3540C/8082 ND 0.42 12/31/12 ΑW 3540C/8082 PCB-1232 mg/kg ND 0.42 12/31/12 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.42 12/31/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.42 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.42 ΑW mg/kg PCB-1262 ND 0.42 mg/kg 12/31/12 ΑW 3540C/8082 ND 0.42 12/31/12 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP 104 % 12/31/12 AW 30 - 150 % % TCMX 61 % 12/31/12 30 - 150 %

> Page 11 of 14 Ver 1

Client ID: A14-S-20 4-4.25 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13059

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**Analysis Report** 

January 04, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 14:30 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD13050

Phoenix ID: BD13062

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-21 2.75-3 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 87 % 12/27/12 E160.3 JL Extraction for PCB Completed 12/28/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.38 mg/kg 12/31/12 ΑW 3540C/8082 PCB-1221 ND 0.38 mg/kg 12/31/12 AW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1232 0.38 mg/kg ND 12/31/12 ΑW 3540C/8082 PCB-1242 0.38 mg/kg ND 0.38 12/31/12 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.38 mg/kg 12/31/12 AW 12/31/12 3540C/8082 PCB-1260 ND 0.38 ΑW mg/kg PCB-1262 ND 0.38 mg/kg 12/31/12 ΑW 3540C/8082 ND 12/31/12 ΑW 3540C/8082 PCB-1268 0.38 mg/kg **QA/QC Surrogates** % DCBP 107 % 12/31/12 AW 30 - 150 % % TCMX 82 % 12/31/12 30 - 150 %

> Page 13 of 14 Ver 1

Client ID: A14-S-21 2.75-3 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 04, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13062

Page 14 of 14 Ver 1



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# QA/QC Report

January 04, 2013

## QA/QC Data

SDG I.D.: GBD13050

	LCS	LCSD	LCS	MS	MSD	MS	% Rec	% RPD
Parameter Blank	%	%	RPD	%	%	RPD	Limits	Limits
QA/QC Batch 217397, QC Sample No: BD13052 (BD13050, BD13051, BD13052, BD13053, BD13059, BD13062)								
Polychlorinated Biphenyls - Soil								
PCB-1016 ND	71	69	2.9				40 - 140	30
PCB-1221 ND							40 - 140	30
PCB-1232 ND							40 - 140	30
PCB-1242 ND							40 - 140	30
PCB-1248 ND							40 - 140	30
PCB-1254 ND							40 - 140	30
PCB-1260 ND	96	89	7.6				40 - 140	30
PCB-1262 ND							40 - 140	30
PCB-1268 ND							40 - 140	30
% DCBP (Surrogate Rec) 100	108	104	3.8				30 - 150	30
% TCMX (Surrogate Rec) 99	104	99	4.9				30 - 150	30
QA/QC Batch 217439, QC Sample No: BD138	73 (BD13056)							
Polychlorinated Biphenyls - Soil								
PCB-1016 ND	70	76	8.2	73			40 - 140	30
PCB-1221 ND							40 - 140	30
PCB-1232 ND							40 - 140	30
PCB-1242 ND							40 - 140	30
PCB-1248 ND							40 - 140	30
PCB-1254 ND							40 - 140	30
PCB-1260 ND	76	79	3.9	83			40 - 140	30
PCB-1262 ND							40 - 140	30
PCB-1268 ND							40 - 140	30
% DCBP (Surrogate Rec) 95	92	97	5.3	96			30 - 150	30
% TCMX (Surrogate Rec) 71	79	75	5.2	80			30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

January 04, 2013

Friday, January 04, 2013

**Sample Criteria Exceedences Report GBD13050 - GZA-PCB** 

State: CT

Requested Criteria: None

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

## Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY 4336 Project Number: Laboratory Sample ID(s): BD13050, BD13051, BD13052, BD13053, BD13054, BD13055, BD13056, BD13057, BD13058, BD13059, BD13060, BD13061, BD13062 **Sampling Date(s):** 12/26/2012 **RCP Methods Used:** 1311/1312 6010 ☐ EPH ☐ TO15 7000 7196 7470/7471 8081 ✔ 8082 8151 8260 8270 ETPH 9010/9012 ☐ VPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) Were all samples received by the laboratory in a condition consistent with that 2. ✓ Yes □ No described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No □ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ☐ Yes ✓ No Were these reporting limits met? 5b. ☐ Yes ☐ No **✓** NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No  $\square$  NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ☐ Yes ✓ No NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Friday, January 04, 2013 Authorized Printed Name: Maryam Taylor Signature: Position: Project Manager



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

January 04, 2013

**SDG I.D.: GBD13050** 

### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd35 01/02/13-1 (BD13056)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/2/2013

**Instrument:** Au-ecd6 12/31/12-1 (BD13050, BD13051, BD13052, BD13053, BD13059, BD13062)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

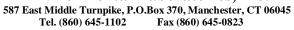
Printed Name Adam Werner Position: Chemist 12/31/2012

QC Batch 17397 12/28/12 (BD13050, BD13051, BD13052, BD13053, BD13059,

BD13062)

**QC Comments:** QC Batch 17439 12/28/12 (BD13056)







# **RCP** Certification Report

January 04, 2013

**SDG I.D.: GBD13050** 

QC (Site Specific) Sample No: BD13052, QA/QC Batch: 217397
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria. <b>QC (Batch Specific)</b> Sample No: BD13873, QA/QC Batch: 217439
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

### **Temperature Narration**

The samples were received at 6C with cooling initiated. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

Cooling BEST NO	°C Pg <b>ر</b>		lgza.cm		o 284 894			illogo i i i i i i i i i i i i i i i i i i	1005/14005/5/50		TO STORY TO													Data Format	Excel	GIS/Key	EQuIS	Data Package	☐ Tier II Checklist ☐ Full Data Package*	Phoenix Std Report Other	* SURCHARGE APPLIES
Cool	Ten	Data Delivery:	A Email: James . hutter 6974.cm	Project P.O:	₩ Strone #: 8€	Fax #:		Ceri	1 STOLET	Sold Sold Sold Sold Sold Sold Sold Sold	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2				_	_			-		-		WA [		GW-2			C   S-2	☐ MWRA eSMART	lected: CT
			0823	uly 43369.82	וניאר						125														Direct Exposure   X RCP Cert   (Residential)	GW Protection	<u> </u>	GB Mobility	Residential DEC	Other	State where samples were collected:
	<b>CHAIN OF CUSTODY RECORD</b>	<u>a</u>	Email: Into@prioentxiabs.com Fax (860) 945-0823 Client Services (860) 645-8726	Project: Comerant Forthy		Invoice to: 6-2-4		ysis yakis rest	Jan.	100														Time:	// ///   Dire (Res	ロ ソル 2//	13 1841 E	, judi	1 Day* 2 Days*	3 Days* Standard	E APPLIES
	CHAIN O	587 East Mid	Client S	Proj	Rep	Invo		Anal Requ	1		5	×	メ	×	×	メ	X	<b>×</b>	<b>&gt;</b>	X	×	X		Date:	12/26/	12/21	KRR1	Turnaround:		3 Days*	Other
		Ĺ	ប៊		Drive		ion	-Date: 12/26/12		WW=Waste Water O=Other	Date Time Sampled	9	1/150	11125	1220	5721	5221	1245	1248	1250	725	1/ 1255	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \								
			Inc.		Brush D	0603	n - Identificat			Surface Water <b>W</b> =Wipe	Sample		,	1 (	-				~				>	;	100 c	X	2	ons:			
			Environmental Laboratories, Inc.	524	Less Winking B	Thopas bung CT	Client Sample - Information - Identification	A LA		DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	Customer Sample Identification	A14-5-15(2.35.3	AH-5-16 (3-3.25	414-5-17(375-4	AN-5-18 (4-4.25	A17-5-18 (5-5.25	114-5-18(5.75-6	لـــٰــ	-	414-2-19(5.75-6		4-S-20(	14-5-20	Accepted by	629,00	1	1	œ.	¥12		<i>J</i> . ***
			Environment	Customer:	Address:	7	(	Signature	Matrix Code:	DW=Drinking Water (SE=Sediment SL=S	PHOENIX USE ONLY		13051 A	13053 14	$\sim$	13054 A		000	1305+	10000 A		$\overline{}$	1800/ A	Relinguished by:	Jun Hen	624 Files		Comments, Special	LIKE TO THE PARTY OF		

Cooler: Yes No	°C Pg 6 of 6	m 6924.cm	286 8900	To Be The State of	00 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8			Data Format  Excel CISKey CISKey CISKey CIPCOUS COTHER Data Package Tier II Checklist Tier II Data Package* The Data Package* The Data Package*	Other
Cooler Physics Will	Le L	Fax#	Project P.O: Phone #: \$\( \varphi \) 256 6500		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$			MA   MCP Certification   MCP Certification   GW-1   GW-2   GW-3   S-1   S-2   S-3   MWRA eSMART	cted:
			Frindey 43369.82		SO DE LA CONTRACTION DEL CONTRACTION DE LA CONTR			CT     Direct Exposure   CT     (Residential)   GW Protection     GW   Corpection     GW   Corpection     GM   Corpection     GB   Mobility     GRESIDENTIAL     GRESID	State where samples were collected:
	<b>CHAIN OF CUSTODY RECORD</b>	587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Project: Commercial Francial Report to: The Hodden Invoice to: CER	Analysis Request Cast Key	X			Time:	Standard Other Surcharge Applies
		Inc.	624 1055 Wording Brook Drive Colorstanding CT 04033	Signature Signature Signature Matrix Code:  Date:  2/24/ 2 Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Soid W=Wipe O=Other	Customer Sample Sample Date Time Identification Matrix Sampled Sampled HI4-5-21(2,45-3) S 12/24/2 1/3 0			Accepted by:	
		PHOENIX ENVIRONMENTAL ENVIRONMENTAL LABORATORIES,	Customer: 624	Signature Signature Matrix Code: DW=Drinking Water GW=Gr	PHOENIX USE ONLY SAMPLE # //SUba			Comments, pecial pequ	



Sunday, January 20, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY 43369.82

Sample ID#s: BD13054 - BD13055, BD13057, BD13060

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 20, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 12:25 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

SDG ID: GBD13050 **Laboratory Data** 

Phoenix ID: BD13054

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-18 5-5.25 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 84 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.39 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.39 mg/kg 01/17/13 AW 3540C/8082 3540C/8082 ND ΑW PCB-1232 0.39 mg/kg 01/17/13 PCB-1242 ND 01/17/13 ΑW 3540C/8082 0.39 mg/kg ND 0.39 01/17/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.39 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.39 01/17/13 ΑW mg/kg PCB-1262 ND 0.39 mg/kg 01/17/13 ΑW 3540C/8082 ND 01/17/13 ΑW 3540C/8082 PCB-1268 0.39 mg/kg **QA/QC Surrogates** % DCBP 77 % 01/17/13 AW 30 - 150 % % TCMX 86 % 01/17/13 30 - 150 %

> Page 1 of 8 Ver 2

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-18 5-5.25 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 20, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13054

Page 2 of 8 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 20, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOILCollected by:12/26/1212:25Location Code:GZA-PCBReceived by:LB12/27/1213:41

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD13050 Phoenix ID: BD13055

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-18 5.75-6 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 87 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.37 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.37 mg/kg 01/17/13 AW 3540C/8082 3540C/8082 ND 01/17/13 ΑW PCB-1232 0.37 mg/kg PCB-1242 ND 01/17/13 ΑW 3540C/8082 0.37 mg/kg ND 01/17/13 AW 3540C/8082 PCB-1248 0.37 mg/kg 3540C/8082 PCB-1254 ND 0.37 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.37 01/17/13 ΑW mg/kg PCB-1262 ND 0.37 mg/kg 01/17/13 ΑW 3540C/8082 ND 0.37 01/17/13 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP 73 % 01/17/13 AW 30 - 150 % % TCMX 84 % 01/17/13 30 - 150 %

Page 3 of 8 Ver 2

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-18 5.75-6 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 20, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13055

Page 4 of 8 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 20, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOILCollected by:12/26/1212:48Location Code:GZA-PCBReceived by:LB12/27/1213:41

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GBD13050

Phoenix ID: BD13057

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-19 5-5.25 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 82 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.4 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.4 mg/kg 01/17/13 AW 3540C/8082 3540C/8082 ND ΑW PCB-1232 0.4 mg/kg 01/17/13 PCB-1242 ND 01/17/13 ΑW 3540C/8082 0.4 mg/kg ND 01/17/13 AW 3540C/8082 PCB-1248 0.4 mg/kg 3540C/8082 PCB-1254 ND 0.4 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.4 01/17/13 ΑW mg/kg PCB-1262 ND 0.4 mg/kg 01/17/13 ΑW 3540C/8082 ND 01/17/13 ΑW 3540C/8082 PCB-1268 0.4 mg/kg **QA/QC Surrogates** % DCBP 76 % 01/17/13 AW 30 - 150 % % TCMX 81 % 01/17/13 30 - 150 %

Page 5 of 8 Ver 2

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-19 5-5.25 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 20, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13057

Page 6 of 8 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 20, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 12/26/12 12:55 **GZA-PCB** Received by: Location Code: LB 12/27/12 13:41 Rush Request: Standard Analyzed by: see "By" below

Rush Request. Sta

P.O.#:

Laboratory Data

SDG ID: GBD13050

Phoenix ID: BD13060

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-20 5-5.25 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 83 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.4 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.4 mg/kg 01/17/13 AW 3540C/8082 3540C/8082 ND ΑW PCB-1232 0.4 mg/kg 01/17/13 PCB-1242 ND 01/17/13 ΑW 3540C/8082 0.4 mg/kg ND 01/17/13 AW 3540C/8082 PCB-1248 0.4 mg/kg 3540C/8082 PCB-1254 ND 0.4 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.4 01/17/13 ΑW mg/kg PCB-1262 ND 0.4 mg/kg 01/17/13 ΑW 3540C/8082 ND 01/17/13 ΑW 3540C/8082 PCB-1268 0.4 mg/kg **QA/QC Surrogates** % DCBP 72 % 01/17/13 AW 30 - 150 % % TCMX 88 % 01/17/13 30 - 150 %

Page 7 of 8 Ver 2

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: A14-S-20 5-5.25 FT

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 20, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13060

Page 8 of 8 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

# QA/QC Data

January 20, 2013	3	QA/QC Dat	<u>a</u>			SD	G I.D.:	GBD13	3050
Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 218604, QC S	Sample No: BD12683 (E	BD13054, BD13055, BD1	13057, B	D13060	0)				
Polychlorinated Biphe	•				•				
PCB-1016	ND	85	84	1.2	86	83	3.6	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	82	83	1.2	83	79	4.9	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	77	78	77	1.3	77	73	5.3	30 - 150	30
% TCMX (Surrogate Rec)	66	88	84	4.7	91	90	1.1	30 - 150	30
QA/QC Batch 217397, QC S	Sample No: BD13052 (E	BD13050, BD13051, BD1	13052, B	D13053	3, BD1	3059, B	D13062	)	
Polychlorinated Biphe	•								
PCB-1016	ND	71	69	2.9				40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	96	89	7.6				40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	100	108	104	3.8				30 - 150	30
% TCMX (Surrogate Rec)	99	104	99	4.9				30 - 150	30
QA/QC Batch 217439, QC S	Sample No: BD13873 (E	BD13056)							
Polychlorinated Biphe	<u>enyls - Soil</u>								
PCB-1016	ND	70	76	8.2	73			40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	76	79	3.9	83			40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	95	92	97	5.3	96			30 - 150	30
% TCMX (Surrogate Rec)	71	79	75	5.2	80			30 - 150	30

# QA/QC Data

SDG I.D.: GBD13050

% RPD % LCS LCSD LCS MS MSD MS Rec Blank % RPD % % RPD Limits Limits % Parameter

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

January 20, 2013

Sunday, January 20, 2013

Requested Criteria: None

State: CT

# **Sample Criteria Exceedences Report**

**GBD13050 - GZA-PCB** 

\*\*\* No Data to Display \*\*\*

Analysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

RL

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY 4336 Project Number: Laboratory Sample ID(s): BD13050, BD13051, BD13052, BD13053, BD13054, BD13055, BD13056, BD13057, BD13058, BD13059, BD13060, BD13061, BD13062 **Sampling Date(s):** 12/26/2012 **RCP Methods Used:** 1311/1312 6010 ☐ EPH ☐ TO15 7000 7196 7470/7471 8081 ✔ 8082 8151 8260 8270 ETPH 9010/9012 ☐ VPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) Were all samples received by the laboratory in a condition consistent with that 2. ✓ Yes □ No described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No ☐ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ☐ Yes ✓ No Were these reporting limits met? 5b. ☐ Yes ☐ No **✓** NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No  $\square$  NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ☐ Yes ✓ No NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Sunday, January 20, 2013 Authorized Printed Name: Maryam Taylor Signature:

Position: Project Manager







# **RCP Certification Report**

January 20, 2013

**SDG I.D.: GBD13050** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** <u>Au-ecd35 01/02/13-1 (BD13056)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/2/2013

**Instrument:** Au-ecd35 01/17/13-1 (BD13054, BD13055, BD13057, BD13060)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/17/2013

**Instrument:** Au-ecd6 12/31/12-1 (BD13050, BD13051, BD13052, BD13053, BD13059, BD13062)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

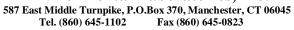
Printed Name Adam Werner Position: Chemist Date: 12/31/2012

OC Comments: OC Batch 17397 12/28/12 (BD13050, BD13051, BD13052, BD13053, BD13059,

BD13062)

**QC Comments:** QC Batch 17439 12/28/12 (BD13056)







# **RCP** Certification Report

January 20, 2013

**SDG I.D.: GBD13050** 

QC Batch 18604 01/15/13 (BD13054, BD13055, BD13057, BD13060)
QC (Site Specific) Sample No: BD13052, QA/QC Batch: 217397
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.  QC (Batch Specific)  ———————————————————————————————————
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Sample No: BD13873, QA/QC Batch: 217439
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

# **Temperature Narration**

The samples were received at 6C with cooling initiated. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

Cooling BEST NO	°C Pg <b>ر</b>		lgza.cm		o 284 894			illogo i i i i i i i i i i i i i i i i i i	1005/14005/5/50		TO STORY TO													Data Format	Excel	GIS/Key	EQuIS	Data Package	☐ Tier II Checklist ☐ Full Data Package*	Phoenix Std Report Other	* SURCHARGE APPLIES
Cool	Ten	Data Delivery:	A Email: James . hutter 6974.cm	Project P.O:	₩ Strone #: 8€	Fax #:		Ceri	1 STOLET	Sold Sold Sold Sold Sold Sold Sold Sold	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2				_	_			-		-		WA [		GW-2			C   S-2	☐ MWRA eSMART	lected: CT
			0823	uly 43369.82	וניאר						125														Direct Exposure   X RCP Cert   (Residential)	GW Protection	<u> </u>	GB Mobility	Residential DEC	Other	State where samples were collected:
	<b>CHAIN OF CUSTODY RECORD</b>	<u>a</u>	Email: Into@prioentxiabs.com Fax (860) 945-0823 Client Services (860) 645-8726	Project: Comerant Forthy		Invoice to: 6-2-4		ysis yakis rest	Jan.	100														Time:	// ///   Dire (Res	ロ ソル 2//	13 1841 E	, judi	1 Day* 2 Days*	3 Days* Standard	E APPLIES
	CHAIN O	587 East Mid	Client S	Proj	Rep	Invo		Anal Requ	1		5	×	メ	×	×	メ	X	<b>×</b>	<b>&gt;</b>	X	×	X		Date:	12/26/	12/21	KRR1	Turnaround:		3 Days*	Other
		Ĺ	ប៊		Drive		ion	-Date: 12/26/12		WW=Waste Water O=Other	Date Time Sampled	9	1/150	11125	1220	5721	5221	1245	1248	1250	725	1/ 1255	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \								
			Inc.		Brush D	0603	n - Identificat			Surface Water <b>W</b> =Wipe	Sample		,	1 (	-				~				>	;	100 c	X	2	ons:			
			Environmental Laboratories, Inc.	524	Less Winking B	Thopas bung CT	Client Sample - Information - Identification	A LA		DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	Customer Sample Identification	A14-5-15(2.35.3	AH-5-16 (3-3.25	414-5-17(375-4	AN-5-18 (4-4.25	A17-5-18 (5-5.25	114-5-18(5.75-6	لـــٰــ	-	414-2-19(5.75-6		4-S-20(	14-5-20	Accepted by	629,00	1	1	œ.	¥12		<i>J</i> . ***
			Environment	Customer:	Address:	7	(	Signature	Matrix Code:	DW=Drinking Water (SE=Sediment SL=S	PHOENIX USE ONLY		13051 A	13053 14	$\sim$	13054 A		000	1305+	10000 A		$\overline{}$	1800/ A	Relinguished by:	Jun Hen	624 Files		Comments, Special	LIKE TO THE PARTY OF		

Cooler: Yes No	°C Pg 6 of 6	m 6924.cm	286 8900	To Be The State of	00 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8			Data Format  Excel CISKey CISKey CISKey CIPCOUS COTHER Data Package Tier II Checklist Tier II Data Package* The Data Package* The Data Package*	Other
Cooler Physics Will	Le L	Fax#	Project P.O: Phone #: \$\( \varphi \) 256 6500		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$			MA   MCP Certification   MCP Certification   GW-1   GW-2   GW-3   S-1   S-2   S-3   MWRA eSMART	cted:
			Frindey 43369.82		SO DE LA CONTRACTION DEL CONTRACTION DE LA CONTR			CT     Direct Exposure   CT     (Residential)   GW Protection     GW   Corpection     GW   Corpection     GM   Corpection     GB   Mobility     GRESIDENTIAL     GRESID	State where samples were collected:
	<b>CHAIN OF CUSTODY RECORD</b>	587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Project: Commercial Francial Report to: The Hodden Invoice to: CER	Analysis Request Cast Key	X			Time:	Standard Other Surcharge Applies
		Inc.	624 1055 Wording Brook Drive Colorstanding CT 04033	Signature Signature Signature Matrix Code:  Date:  2/24/ 2 Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Soid W=Wipe O=Other	Customer Sample Sample Date Time Identification Matrix Sampled Sampled HI4-5-21(2,45-3) S 12/24/2 1/3 0			Accepted by:	
		PHOENIX ENVIRONMENTAL ENVIRONMENTAL LABORATORIES,	Customer: 624	Signature Signature Matrix Code: DW=Drinking Water GW=Gr	PHOENIX USE ONLY SAMPLE # //SUba			Comments, pecial pequ	



#### obbi - Phoenixlabs

From: Benjamin Graham [Benjamin.Graham@gza.com]

Sent: Tuesday, January 15, 2013 8:20 AM

To: bobbi@phoenixlabs.com

Cc: James Hutton

Subject: commercial foundry additional samples

Hi Bobbi. I would like to run some additional samples from our Commercial Foundry job (43369.82). Could you run concrete floor samples for PCBs by manual soxhlet for the following samples you have on hold:

A3-F-1 (0.5-1") ~ (370) A3-F-3 (0.5-1") \ 13703 A3-F-4(0.5-1") - (3704) A3-F-5(0.5-1") - 13705 A4-F-1(0.5-1") 13700 A4-F-6(0.5-1")- 13711 A4-F-7(0.5-1") - (37(2) A5-F-1(0.5-1") - 13713 A5-F-2(0.5-1") - 13114 A5-F-3(0.5-1") - 13715 A5-F-4(0.5-1") - 13716 A5-F-5(0.5-1") ~ 13717 A10-F-1(0.5-1") - 13718 A10-F-3(0.5-1") - 13720 A10-F-6(0.5-1") - 13723 A10-F-7(0.5-1") -(3)24 A10-F-11(0.5-1") ~ 13728 A10-F-12(0.5-1")- 13729 A10-F-15(0.5-1") \_ 13132 A10-F-16(0.5-1") - 13133 A10-F-17(0.5-1") 13134 A10-F-18(0.5-1") - 13735 A10-F-19(0.5-1") - 13734 A10-F-20(0.5-1") - 13137 A14-F-5(0.5-1") 1344 13741

Thank you. Please give myself or Jim Hutton a call with any questions.

Benjamin A. Graham
Environmental Scientist
GZA GeoEnvironmental Inc.
655 Winding Brook Drive, Suite 402
Glastonbury CT 06033

Office: (860) 858-3129 Cell: (860)227-6971 Fax: (860)652-8590



### Bobbi - Phoenixlabs

From:

Benjamin Graham [Benjamin.Graham@gza.com]

Sent:

Tuesday, January 15, 2013 9:42 AM

To:

bobbi@phoenixlabs.com

Cc:

James Hutton

Subject: more comm foundry add ons (43369.82)

Bobbi, could we also run:

A14-S-18 (5-5.25') & (5.75-6'), A14-S-19 (5-5.25') and A14-S-20 (5-5.25') for PCBs by Manual Soxhlet

A1-S-4 (0-6") for PAHs and ETPH

A1-S-6 (0-2') for PAHs

413815

Thanks again!

Benjamin A. Graham **Environmental Scientist** GZA GeoEnvironmental Inc. 655 Winding Brook Drive, Suite 402 Glastonbury CT 06033

Office: (860) 858-3129 Cell: (860)227-6971 Fax: (860)652-8590

Proactive by Design

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For information about GZA GeoEnvironmental, Inc. and its services, please visit our website at www.gza.com.



Monday, January 07, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY

Sample ID#s: BD13680 - BD13689

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/27/12 9:30 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20 Rush Request:

Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13680

Phoenix ID: BD13680

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-PW-1

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/28/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	2	mg/kg	01/04/13	AW	3540C/8082
PCB-1221	ND	2	mg/kg	01/04/13	AW	3540C/8082
PCB-1232	ND	2	mg/kg	01/04/13	AW	3540C/8082
PCB-1242	ND	2	mg/kg	01/04/13	AW	3540C/8082
PCB-1248	*	2	mg/kg	01/04/13	AW	3540C/8082
PCB-1254	*	2	mg/kg	01/04/13	AW	3540C/8082
PCB-1260	ND	2	mg/kg	01/04/13	AW	3540C/8082
PCB-1262	ND	2	mg/kg	01/04/13	AW	3540C/8082
PCB-1268	ND	2	mg/kg	01/04/13	AW	3540C/8082
Total PCBs	16	2	mg/kg	01/04/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	116		%	01/04/13	AW	30 - 150 %
% TCMX	112		%	01/04/13	AW	30 - 150 %

Page 1 of 20 Ver 1 Project ID: COMMERCIAL FOUNDRY

Client ID: A10-PW-1

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13680

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOLIDCollected by:12/27/1210:15Location Code:GZA-PCBReceived by:SW12/28/1215:20Rush Request:StandardAnalyzed by:analyzed by:analyzed by:analyzed by:

Rush Request: Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GBD13680

Phoenix ID: BD13681

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-PW-2

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/28/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3	mg/kg	01/02/13	AW	3540C/8082
PCB-1221	ND	3	mg/kg	01/02/13	AW	3540C/8082
PCB-1232	ND	3	mg/kg	01/02/13	AW	3540C/8082
PCB-1242	ND	3	mg/kg	01/02/13	AW	3540C/8082
PCB-1248	*	3	mg/kg	01/02/13	AW	3540C/8082
PCB-1254	*	3	mg/kg	01/02/13	AW	3540C/8082
PCB-1260	ND	3	mg/kg	01/02/13	AW	3540C/8082
PCB-1262	ND	3	mg/kg	01/02/13	AW	3540C/8082
PCB-1268	ND	3	mg/kg	01/02/13	AW	3540C/8082
Total PCBs	37	3	mg/kg	01/02/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	88		%	01/02/13	AW	30 - 150 %
% TCMX	83		%	01/02/13	AW	30 - 150 %

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Project ID: COMMERCIAL FOUNDRY

Client ID: A10-PW-2

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13681

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: **SOLID** Collected by: 12/27/12 10:45 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13680

Phoenix ID: BD13682

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-PW-3

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/28/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	8	mg/kg	01/03/13	AW	3540C/8082
PCB-1221	ND	8	mg/kg	01/03/13	AW	3540C/8082
PCB-1232	ND	8	mg/kg	01/03/13	AW	3540C/8082
PCB-1242	ND	8	mg/kg	01/03/13	AW	3540C/8082
PCB-1248	*	8	mg/kg	01/03/13	AW	3540C/8082
PCB-1254	ND	8	mg/kg	01/03/13	AW	3540C/8082
PCB-1260	ND	8	mg/kg	01/03/13	AW	3540C/8082
PCB-1262	ND	8	mg/kg	01/03/13	AW	3540C/8082
PCB-1268	ND	8	mg/kg	01/03/13	AW	3540C/8082
Total PCBs	36	8	mg/kg	01/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	01/03/13	AW	30 - 150 %
% TCMX	Diluted Out		%	01/03/13	AW	30 - 150 %

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Project ID: COMMERCIAL FOUNDRY

Client ID: A10-PW-3

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13682

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### Comments:

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/27/12 11:00 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20 Rush Request:

Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13680

Phoenix ID: BD13683

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-PW-4

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/28/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	14	mg/kg	01/03/13	AW	3540C/8082
PCB-1221	ND	14	mg/kg	01/03/13	AW	3540C/8082
PCB-1232	ND	14	mg/kg	01/03/13	AW	3540C/8082
PCB-1242	ND	14	mg/kg	01/03/13	AW	3540C/8082
PCB-1248	*	14	mg/kg	01/03/13	AW	3540C/8082
PCB-1254	ND	14	mg/kg	01/03/13	AW	3540C/8082
PCB-1260	ND	14	mg/kg	01/03/13	AW	3540C/8082
PCB-1262	ND	14	mg/kg	01/03/13	AW	3540C/8082
PCB-1268	ND	14	mg/kg	01/03/13	AW	3540C/8082
Total PCBs	52	14	mg/kg	01/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	01/03/13	AW	30 - 150 %
% TCMX	Diluted Out		%	01/03/13	AW	30 - 150 %

Page 7 of 20 Ver 1 Project ID: COMMERCIAL FOUNDRY

Client ID: A10-PW-4

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13683

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Page 8 of 20 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/27/12 12:00 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

Laboratory Data

SDG ID: GBD13680

Phoenix ID: BD13684

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-PW-6

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/28/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	9.2	mg/kg	01/03/13	AW	3540C/8082
PCB-1221	ND	9.2	mg/kg	01/03/13	AW	3540C/8082
PCB-1232	ND	9.2	mg/kg	01/03/13	AW	3540C/8082
PCB-1242	ND	9.2	mg/kg	01/03/13	AW	3540C/8082
PCB-1248	38	9.2	mg/kg	01/03/13	AW	3540C/8082
PCB-1254	ND	9.2	mg/kg	01/03/13	AW	3540C/8082
PCB-1260	ND	9.2	mg/kg	01/03/13	AW	3540C/8082
PCB-1262	ND	9.2	mg/kg	01/03/13	AW	3540C/8082
PCB-1268	ND	9.2	mg/kg	01/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	01/03/13	AW	30 - 150 %
% TCMX	Diluted Out		%	01/03/13	AW	30 - 150 %

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Project ID: COMMERCIAL FOUNDRY

Client ID: A10-PW-6

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13684

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/27/12 12:25 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13680

Phoenix ID: BD13685

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-PW-5

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3.2	mg/kg	01/04/13	AW	3540C/8082
PCB-1221	ND	3.2	mg/kg	01/04/13	AW	3540C/8082
PCB-1232	ND	3.2	mg/kg	01/04/13	AW	3540C/8082
PCB-1242	ND	3.2	mg/kg	01/04/13	AW	3540C/8082
PCB-1248	*	3.2	mg/kg	01/04/13	AW	3540C/8082
PCB-1254	*	3.2	mg/kg	01/04/13	AW	3540C/8082
PCB-1260	ND	3.2	mg/kg	01/04/13	AW	3540C/8082
PCB-1262	ND	3.2	mg/kg	01/04/13	AW	3540C/8082
PCB-1268	ND	3.2	mg/kg	01/04/13	AW	3540C/8082
Total PCBs	32	3.2	mg/kg	01/04/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	112		%	01/04/13	AW	30 - 150 %
% TCMX	108		%	01/04/13	AW	30 - 150 %

Page 11 of 20 Ver 1

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-PW-5

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13685

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Page 12 of 20 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/27/12 12:45 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20 Rush Request: Standard

Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13680

Phoenix ID: BD13686

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-PW-7

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.72	mg/kg	01/02/13	AW	3540C/8082
PCB-1221	ND	0.72	mg/kg	01/02/13	AW	3540C/8082
PCB-1232	ND	0.72	mg/kg	01/02/13	AW	3540C/8082
PCB-1242	ND	0.72	mg/kg	01/02/13	AW	3540C/8082
PCB-1248	*	0.72	mg/kg	01/02/13	AW	3540C/8082
PCB-1254	*	0.72	mg/kg	01/02/13	AW	3540C/8082
PCB-1260	ND	0.72	mg/kg	01/02/13	AW	3540C/8082
PCB-1262	ND	0.72	mg/kg	01/02/13	AW	3540C/8082
PCB-1268	ND	0.72	mg/kg	01/02/13	AW	3540C/8082
Total PCBs	1.2	0.72	mg/kg	01/02/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	92		%	01/02/13	AW	30 - 150 %
% TCMX	84		%	01/02/13	AW	30 - 150 %

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Client ID: A10-PW-7

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13686

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/27/12 13:00 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

Laboratory Data

SDG ID: GBD13680

Phoenix ID: BD13687

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-PW-8

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3.4	mg/kg	01/02/13	AW	3540C/8082
PCB-1221	ND	3.4	mg/kg	01/02/13	AW	3540C/8082
PCB-1232	ND	3.4	mg/kg	01/02/13	AW	3540C/8082
PCB-1242	ND	3.4	mg/kg	01/02/13	AW	3540C/8082
PCB-1248	*	3.4	mg/kg	01/02/13	AW	3540C/8082
PCB-1254	*	3.4	mg/kg	01/02/13	AW	3540C/8082
PCB-1260	ND	3.4	mg/kg	01/02/13	AW	3540C/8082
PCB-1262	ND	3.4	mg/kg	01/02/13	AW	3540C/8082
PCB-1268	ND	3.4	mg/kg	01/02/13	AW	3540C/8082
Total PCBs	24	3.4	mg/kg	01/02/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	01/02/13	AW	30 - 150 %
% TCMX	Diluted Out		%	01/02/13	AW	30 - 150 %

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Client ID: A10-PW-8

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13687

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/27/12 13:20 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13680

Phoenix ID: BD13688

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-PW-9

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	1.9	mg/kg	01/04/13	AW	3540C/8082
PCB-1221	ND	1.9	mg/kg	01/04/13	AW	3540C/8082
PCB-1232	ND	1.9	mg/kg	01/04/13	AW	3540C/8082
PCB-1242	ND	1.9	mg/kg	01/04/13	AW	3540C/8082
PCB-1248	*	1.9	mg/kg	01/04/13	AW	3540C/8082
PCB-1254	*	1.9	mg/kg	01/04/13	AW	3540C/8082
PCB-1260	ND	1.9	mg/kg	01/04/13	AW	3540C/8082
PCB-1262	ND	1.9	mg/kg	01/04/13	AW	3540C/8082
PCB-1268	ND	1.9	mg/kg	01/04/13	AW	3540C/8082
Total PCBs	26	1.9	mg/kg	01/04/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	114		%	01/04/13	AW	30 - 150 %
% TCMX	106		%	01/04/13	AW	30 - 150 %

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Client ID: A10-PW-9

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13688

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOLIDCollected by:12/27/1214:30Location Code:GZA-PCBReceived by:SW12/28/1215:20Rush Request:StandardAnalyzed by:analyzed by:analyzed by:analyzed by:

Rush Request: Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GBD13680

Phoenix ID: BD13689

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-PW-10

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	8	mg/kg	01/04/13	AW	3540C/8082
PCB-1221	ND	8	mg/kg	01/04/13	AW	3540C/8082
PCB-1232	ND	8	mg/kg	01/04/13	AW	3540C/8082
PCB-1242	ND	8	mg/kg	01/04/13	AW	3540C/8082
PCB-1248	*	8	mg/kg	01/04/13	AW	3540C/8082
PCB-1254	ND	8	mg/kg	01/04/13	AW	3540C/8082
PCB-1260	ND	8	mg/kg	01/04/13	AW	3540C/8082
PCB-1262	ND	8	mg/kg	01/04/13	AW	3540C/8082
PCB-1268	ND	8	mg/kg	01/04/13	AW	3540C/8082
Total PCBs	45	8	mg/kg	01/04/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	01/04/13	AW	30 - 150 %
% TCMX	Diluted Out		%	01/04/13	AW	30 - 150 %

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Client ID: A10-PW-10

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13689

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Page 20 of 20 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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# QA/QC Report

January 07, 2013

## QA/QC Data

SDG I.D.: GBD13680

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits
QA/QC Batch 217438, QC Sample No: BD13685 (BD13685, BD13686, BD13687, BD13688, BD13689)									
Polychlorinated Biph	enyls - Solid								
PCB-1016	ND ND	94	85	10.1				40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	98	91	7.4				40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	83	90	86	4.5				30 - 150	30
% TCMX (Surrogate Rec)	81	92	86	6.7				30 - 150	30
Comment:									
A LCS and LCS Duplicate we	ere performed instead of a matrix spik	ce and matrix spike	duplicate						
OA/OC Batch 217417. OC	Sample No: BD14004 (BD1368)	0. BD13681. BD1	3682. B	D13683	3. BD1:	3684)			
Polychlorinated Biph		, ,	,		,	,			
PCB-1016	ND	77	82	6.3	73	73	0.0	40 - 140	30
PCB-1010	ND	7.7	02	0.5	73	73	0.0	40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	78	80	2.5	73	76	4.0	40 - 140	30
PCB-1262	ND		00	2.0		, 0		40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	83	85	88	3.5	81	81	0.0	30 - 150	30
% TCMX (Surrogate Rec)	83	84	87	3.5	82	81	1.2	30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

January 07, 2013

Monday, January 07, 2013

## **Sample Criteria Exceedences Report GBD13680 - GZA-PCB**

State: CT

Requested Criteria: None

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

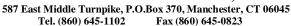
Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

## Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY **Project Number:** Laboratory Sample ID(s): BD13680, BD13681, BD13682, BD13683, BD13684, BD13685, BD13686, BD13687, BD13688, BD13689 **Sampling Date(s):** 12/27/2012 **RCP Methods Used:** □ 7000 1311/1312 6010 ☐ EPH ☐ TO15 7196 7470/7471 8081 ✔ 8082 8151 8260 8270 ETPH 9010/9012 ☐ VPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) Were all samples received by the laboratory in a condition consistent with that 2. ✓ Yes □ No described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No ☐ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ✓ Yes □ No Were these reporting limits met? 5b. ✓ Yes □ No □ NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No  $\square$  NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ☐ Yes ✓ No NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Monday, January 07, 2013 Authorized Printed Name: Greg Lawrence Signature: Position: Assistant Lab Director







# **RCP Certification Report**

January 07, 2013

SDG I.D.: GBD13680

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** <u>Au-ecd1 01/04/13-1 (BD13680, BD13685, BD13688)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/4/2013

**Instrument:** Au-ecd3 01/02/13-1 (BD13681, BD13686)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/2/2013

**Instrument:** Au-ecd35 01/02/13-1 (BD13685, BD13687, BD13688)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/2/2013

**Instrument:** Au-ecd35 01/03/13-1 (BD13682, BD13683, BD13684, BD13686)

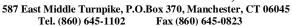
8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none









# **RCP Certification Report**

January 07, 2013

**SDG I.D.: GBD13680** 

Printed Name Adam Werner Position: Chemist 1/3/2013

QC Batch 17417 12/28/12 (BD13680, BD13681, BD13682, BD13683, BD13684)

**QC Comments:** QC Batch 17438 12/28/12 (BD13685, BD13686, BD13687, BD13688, BD13689)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

#### QC (Site Specific)

----- Sample No: BD13685, QA/QC Batch: 217438 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria. **QC (Batch Specific)** 

----- Sample No: BD14004, QA/QC Batch: 217417 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**

The samples in this delivery group were received at  $6^{\circ}$ C. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

			The state of the s
	CHAIN OF CUS	CHAIN OF CUSTODY RECORD	Data Delivery
	587 East Middle Turnpike, P.O. Box 3	587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040 Email: envise@phonivjabs.com	Fax#
Environmental Laboratories, I.	Inc. Client Services	6	B Email: Janes, husten 69 36. com
Customer: C24	Project: Commercial	Frenchy 4369.82	Project P.O:
Address: (4 ST Windin Book Drive	Report to:	Hutter	Phone #: 86c 28c 89co
Flestenbury Ct 06033	Invoice to: GRA		Fax #:
Client Sample - Information - Identification			
Sampler's Signature	Analysis Date/ 2/27/12 Request		ILAGO I SOCIALIZADA
Matrix Code: DW=drinking water WW=wastewater S=soil/solid	O=other		1000 1 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
			OSE INDES
Phoenix Customer Sample Sample Hontification	Sample Date Time Matrix Sampled Sampled	0.100	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
A10-PW-1			
13681 AW-AW-Z	X 5,007 1		
$\stackrel{\sim}{\sim}$	X 5401 0		
1/10-PW-4	X 2011		
	C /200 X		
6085 A10-PW-5	0   1225   X		
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7 1410-		5)	
X 10 -			
12084 A10-F2-13	4 1430 ×		
Relingutahed by:	Accepted by: Date: Time:	Turnaround: CT/RI MA	<u> </u> <u> </u> <u> </u>
10 12 12.1 674 115 Full	Story 12/12	KUL	ig ZDAH
	200 2/1/2/17 12/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/	*, E	GW-2   C GIS/Key   GW-3   C GW-3   C GW-3   C GW-S   C
Comments, Special Requirements or Regulations:		Other Res. Vol.	Dat
+ 95-5-2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	)	* surcHARGE	RA eSMART
		State where samples were collected:	rd: C



Monday, January 07, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY

Sample ID#s: BD13690 - BD13700

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007

ME Lab Registration #CT-007

NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530

RI Lab Registration #63

VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 7:35 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13690

Phoenix ID: BD13690

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F20-0-0.5

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 98 % E160.3 12/28/12 JL Extraction for PCB Completed 12/31/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 01/02/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 01/02/13 AW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1232 0.34 mg/kg ND 01/02/13 ΑW 3540C/8082 PCB-1242 0.34 mg/kg 01/02/13 AW 3540C/8082 PCB-1248 0.34 mg/kg 3540C/8082 PCB-1254 0.34 mg/kg 01/02/13 AW 3540C/8082 PCB-1260 ND 0.34 01/02/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 01/02/13 ΑW 3540C/8082 PCB-1268 ND ΑW 3540C/8082 0.34 mg/kg 01/02/13 3540C/8082 0.34 01/02/13 AW Total PCBs 1.3 mg/kg **QA/QC Surrogates** % DCBP 102 % 01/02/13 AW 30 - 150 % 90 01/02/13 ΑW 30 - 150 % % TCMX %

> Page 1 of 22 Ver 1

Client ID: A10-F20-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13690

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Page 2 of 22 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 7:40 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82 Laboratory Data

SDG ID: GBD13690

Phoenix ID: BD13691

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-F21-0-0.5

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 99 % E160.3 12/28/12 JL Extraction for PCB Completed 12/31/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 01/02/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 01/02/13 AW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 01/02/13 ΑW 3540C/8082 PCB-1242 0.33 mg/kg 01/02/13 AW 3540C/8082 PCB-1248 0.33 mg/kg 3540C/8082 PCB-1254 0.33 mg/kg 01/02/13 AW 3540C/8082 PCB-1260 ND 0.33 01/02/13 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 01/02/13 ΑW 3540C/8082 PCB-1268 ND ΑW 3540C/8082 0.33 mg/kg 01/02/13 3540C/8082 0.33 01/02/13 AW Total PCBs 0.75 mg/kg **QA/QC Surrogates** % DCBP 100 % 01/02/13 AW 30 - 150 % 88 01/02/13 ΑW 30 - 150 % % TCMX %

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Client ID: A10-F21-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13691

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 7:45 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13690

Phoenix ID: BD13692

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-F22-0-0.5

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 97 % E160.3 12/28/12 JL Extraction for PCB Completed 12/31/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 01/02/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 01/02/13 AW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 0.33 01/02/13 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.33 01/02/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 01/02/13 AW 3540C/8082 PCB-1260 ND 0.33 01/02/13 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 01/02/13 ΑW 3540C/8082 ND 01/02/13 ΑW 3540C/8082 PCB-1268 0.33 mg/kg **QA/QC Surrogates** % DCBP 100 % 01/02/13 AW 30 - 150 % % TCMX 91 % 01/02/13 30 - 150 %

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Client ID: A10-F22-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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January 07, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13692

Page 6 of 22 Ver 1



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**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 7:50 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20

Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13690

Phoenix ID: BD13693

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F23-0-0.5

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 98 % E160.3 12/28/12 JL Extraction for PCB Completed 12/31/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.067 mg/kg 01/03/13 ΑW 3540C/8082 PCB-1221 ND 0.067 mg/kg 01/03/13 AW 3540C/8082 ND 0.067 01/03/13 ΑW 3540C/8082 PCB-1232 mg/kg ND 0.067 01/03/13 ΑW 3540C/8082 PCB-1242 mg/kg 0.067 01/03/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 0.067 mg/kg 01/03/13 AW 3540C/8082 PCB-1260 ND 0.067 01/03/13 ΑW mg/kg PCB-1262 ND 0.067 mg/kg 01/03/13 ΑW 3540C/8082 PCB-1268 ND 0.067 01/03/13 ΑW 3540C/8082 mg/kg 3540C/8082 0.067 01/03/13 AW Total PCBs 0.3 mg/kg **QA/QC Surrogates** % DCBP 75 % 01/03/13 AW 30 - 150 % 78 01/03/13 ΑW 30 - 150 % % TCMX %

> Page 7 of 22 Ver 1

Client ID: A10-F23-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13693

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

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Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: SD 12/27/12 8:10 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13690

Phoenix ID: BD13694

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A14-F5-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	97		%	12/28/12	JL	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	1.7	mg/kg	01/02/13	AW	3540C/8082
PCB-1221	ND	1.7	mg/kg	01/02/13	AW	3540C/8082
PCB-1232	ND	1.7	mg/kg	01/02/13	AW	3540C/8082
PCB-1242	ND	1.7	mg/kg	01/02/13	AW	3540C/8082
PCB-1248	*	1.7	mg/kg	01/02/13	AW	3540C/8082
PCB-1254	*	1.7	mg/kg	01/02/13	AW	3540C/8082
PCB-1260	ND	1.7	mg/kg	01/02/13	AW	3540C/8082
PCB-1262	ND	1.7	mg/kg	01/02/13	AW	3540C/8082
PCB-1268	ND	1.7	mg/kg	01/02/13	AW	3540C/8082
Total PCBs	20	1.7	mg/kg	01/02/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	01/02/13	AW	30 - 150 %
% TCMX	Diluted Out		%	01/02/13	AW	30 - 150 %

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Client ID: A14-F5-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13694

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: SD 12/27/12 8:15 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20 Rush Request:

Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13690

Phoenix ID: BD13695

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A14-F6-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	94		%	12/28/12	JL	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.069	mg/kg	01/03/13	AW	3540C/8082
PCB-1221	ND	0.069	mg/kg	01/03/13	AW	3540C/8082
PCB-1232	ND	0.069	mg/kg	01/03/13	AW	3540C/8082
PCB-1242	ND	0.069	mg/kg	01/03/13	AW	3540C/8082
PCB-1248	*	0.069	mg/kg	01/03/13	AW	3540C/8082
PCB-1254	*	0.069	mg/kg	01/03/13	AW	3540C/8082
PCB-1260	ND	0.069	mg/kg	01/03/13	AW	3540C/8082
PCB-1262	ND	0.069	mg/kg	01/03/13	AW	3540C/8082
PCB-1268	ND	0.069	mg/kg	01/03/13	AW	3540C/8082
Total PCBs	0.26	0.069	mg/kg	01/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	74		%	01/03/13	AW	30 - 150 %
% TCMX	82		%	01/03/13	AW	30 - 150 %

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Client ID: A14-F6-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13695

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 8:20 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Analyzed by:

Rush Request: Standard see "By" below

\_aboratory Data

SDG ID: GBD13690

Phoenix ID: BD13696

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A14-F7-0-0.5

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 92 % E160.3 12/28/12 JL Extraction for PCB Completed 12/31/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.071 mg/kg 01/03/13 ΑW 3540C/8082 PCB-1221 ND 0.071 mg/kg 01/03/13 AW 3540C/8082 ND 01/03/13 ΑW 3540C/8082 PCB-1232 0.071 mg/kg ND 0.071 01/03/13 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.071 01/03/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.071 mg/kg 01/03/13 AW 3540C/8082 PCB-1260 ND 0.071 01/03/13 ΑW mg/kg PCB-1262 ND 0.071 mg/kg 01/03/13 ΑW 3540C/8082 ND 0.071 01/03/13 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP 78 % 01/03/13 AW 30 - 150 % % TCMX 72 % 01/03/13 30 - 150 %

> Page 13 of 22 Ver 1

Client ID: A14-F7-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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Phoenix I.D.: BD13696

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**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOLID Collected by: SD 12/27/12 8:25 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13690

Phoenix ID: BD13697

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A14-F8-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	96		%	12/28/12	JL	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.068	mg/kg	01/03/13	AW	3540C/8082
PCB-1221	ND	0.068	mg/kg	01/03/13	AW	3540C/8082
PCB-1232	ND	0.068	mg/kg	01/03/13	AW	3540C/8082
PCB-1242	ND	0.068	mg/kg	01/03/13	AW	3540C/8082
PCB-1248	*	0.068	mg/kg	01/03/13	AW	3540C/8082
PCB-1254	*	0.068	mg/kg	01/03/13	AW	3540C/8082
PCB-1260	ND	0.068	mg/kg	01/03/13	AW	3540C/8082
PCB-1262	ND	0.068	mg/kg	01/03/13	AW	3540C/8082
PCB-1268	ND	0.068	mg/kg	01/03/13	AW	3540C/8082
Total PCBs	0.28	0.068	mg/kg	01/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	79		%	01/03/13	AW	30 - 150 %
% TCMX	84		%	01/03/13	AW	30 - 150 %

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Client ID: A14-F8-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13697

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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January 07, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: SD 12/27/12 8:30 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20 Rush Request:

Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13690

Phoenix ID: BD13698

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A14-F9-0-0.5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	12/28/12	JL	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.066	mg/kg	01/03/13	AW	3540C/8082
PCB-1221	ND	0.066	mg/kg	01/03/13	AW	3540C/8082
PCB-1232	ND	0.066	mg/kg	01/03/13	AW	3540C/8082
PCB-1242	ND	0.066	mg/kg	01/03/13	AW	3540C/8082
PCB-1248	*	0.066	mg/kg	01/03/13	AW	3540C/8082
PCB-1254	ND	0.066	mg/kg	01/03/13	AW	3540C/8082
PCB-1260	ND	0.066	mg/kg	01/03/13	AW	3540C/8082
PCB-1262	ND	0.066	mg/kg	01/03/13	AW	3540C/8082
PCB-1268	ND	0.066	mg/kg	01/03/13	AW	3540C/8082
Total PCBs	0.15	0.066	mg/kg	01/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	79		%	01/03/13	AW	30 - 150 %
% TCMX	93		%	01/03/13	AW	30 - 150 %

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Client ID: A14-F9-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13698

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



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**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 8:35 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13690

Phoenix ID: BD13699

Project ID: COMMERCIAL FOUNDRY

Client ID: A14-F10-0-0.5

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 98 % E160.3 12/28/12 JL Extraction for PCB Completed 12/31/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.068 mg/kg 01/03/13 ΑW 3540C/8082 PCB-1221 ND 0.068 mg/kg 01/03/13 AW 3540C/8082 ND 0.068 01/03/13 ΑW 3540C/8082 PCB-1232 mg/kg ND 0.068 01/03/13 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.068 01/03/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.068 mg/kg 01/03/13 AW 0.068 3540C/8082 PCB-1260 ND 01/03/13 ΑW mg/kg PCB-1262 ND 0.068 mg/kg 01/03/13 ΑW 3540C/8082 ND 0.068 01/03/13 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP 79 % 01/03/13 AW 30 - 150 % % TCMX 72 % 01/03/13 30 - 150 %

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Client ID: A14-F10-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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January 07, 2013

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Phoenix I.D.: BD13699

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**Analysis Report** 

January 07, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 8:40 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13690

Phoenix ID: BD13700

Project ID: COMMERCIAL FOUNDRY

Client ID: A14-F11-0-0.5

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 99 % E160.3 12/28/12 JL Extraction for PCB Completed 12/31/12 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.067 mg/kg 01/03/13 ΑW 3540C/8082 PCB-1221 ND 0.067 mg/kg 01/03/13 AW 3540C/8082 ND 0.067 01/03/13 ΑW 3540C/8082 PCB-1232 mg/kg ND 0.067 01/03/13 ΑW 3540C/8082 PCB-1242 mg/kg 0.067 01/03/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.067 mg/kg 01/03/13 AW 3540C/8082 PCB-1260 ND 0.067 01/03/13 ΑW mg/kg PCB-1262 ND 0.067 mg/kg 01/03/13 ΑW 3540C/8082 PCB-1268 ND 0.067 01/03/13 ΑW 3540C/8082 mg/kg 3540C/8082 0.096 0.067 01/03/13 AW Total PCBs mg/kg **QA/QC Surrogates** % DCBP 84 % 01/03/13 AW 30 - 150 % 98 01/03/13 ΑW 30 - 150 % % TCMX %

Page 21 of 22 Ver 1

Client ID: A14-F11-0-0.5

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD13700

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 07, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

January 07, 2013

## QA/QC Data

SDG I.D.: GBD13690

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits
QA/QC Batch 217438, QC S BD13697, BD13698, BD136		13690, BD13691, BD1	3692, E	3D13693	, BD1	3694, BI	D13695	, BD1369	16,
Polychlorinated Biphe	•								
PCB-1016	ND	94	85	10.1				40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	98	91	7.4				40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	83	90	86	4.5				30 - 150	30
% TCMX (Surrogate Rec)	81	92	86	6.7				30 - 150	30
Comment:									
A LCS and LCS Duplicate wer	re performed instead of a matr	ix spike and matrix spike	duplicate	<b>)</b> .					

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis Shiller, Laboratory Director

January 07, 2013

Monday, January 07, 2013

Requested Criteria: None

**Sample Criteria Exceedences Report GBD13690 - GZA-PCB** 

State: CT

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RLCriteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

## Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY **Project Number:** Laboratory Sample ID(s): BD13690, BD13691, BD13692, BD13693, BD13694, BD13695, BD13696, BD13697, BD13698, BD13699, BD13700 **Sampling Date(s):** 12/27/2012 **RCP Methods Used:** 1311/1312 6010 ☐ EPH ☐ TO15 7000 7196 7470/7471 8081 ✔ 8082 8151 8260 8270 ETPH 9010/9012 ☐ VPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) Were all samples received by the laboratory in a condition consistent with that 2. ✓ Yes □ No described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No ☐ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ☐ Yes ✓ No Were these reporting limits met? 5b. ☐ Yes ☐ No **✓** NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No  $\square$  NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ☐ Yes ✓ No NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Monday, January 07, 2013 Authorized Printed Name: Maryam Taylor Signature: Position: Project Manager







# **RCP Certification Report**

January 07, 2013

**SDG I.D.: GBD13690** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd35 01/02/13-1 (BD13690, BD13691, BD13692, BD13694)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/2/2013

**Instrument:** Au-ecd7 01/03/13-1 (BD13690, BD13691, BD13692, BD13693, BD13695,

BD13696, BD13697, BD13698, BD13699, BD13700)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 1/3/2013

**QC** Comments: QC Batch 17438 12/28/12 (BD13690, BD13691, BD13692, BD13693, BD13694,

BD13695, BD13696, BD13697, BD13698, BD13699, BD13700)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

#### QC (Batch Specific)

----- Sample No: BD13685, QA/QC Batch: 217438 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

M Email: James. Hotston BJCP. com HUGS HOEN IN Hoos Jugos Jugos ASP-A
IN NJ Reduced Deliv. \*
NJ Hazsite EDD Phoenix Std Report 43369.82 Data Package Data Format

K Excel

K PDF

GIS/Key Data Delivery: Fax #: MWRA eSMART Project P.O: MCP Cert. Phone #: State where samples were collected: Fax #: GW-2 GW-3 S-1 GW-1 Res. Criteria Other GB Mobility SW Protect. **GW Protect GA Mobility** RCP Cert. Res. Vol. 587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040 Ind. Vol. Fax (860) 645-0823 CHAIN OF CUSTODY RECORD Project: Commercial Foundry Client Services (860) 645-8726 3 Days\*
X Standard
Other \* SURCHARGE 1 Day\*
2 Days\* Turnaround: 3 Days\* APPLIES Invoice to: Jim Huttern Report to: Jim Holyton Email: service@phoenixlabs.com Kappa Ranka 1530 800 Time: 1600 Analysis Request (J. 38:19) 21/22/2, zipetei X 02/20 21/24/20 × K 0830 2/17471 3470 21/12 0180 2/27 12/12 0826 0480 WELL Date 12/12 12/20 12/12 12/20825 Sampled Sampled dala 0740 12/12/0835 1400/1255 Time Date Accepted by: WW=wastewater S=soil/solid O=other 924 Mil 496 Client Sample - Information - Identification Sample Matrix 00037 0 Environmental Laboratories, Inc. 655 Winding Breek Dr 0 0 Ð 0 0 90 6 Ö 0 200-0-12-0-05 A10-F-13-0-05 rements or Regulations: A10-F20-0-0-5 A=air AIH-F5-0-0.5 3697 AH-F8-0-05 JCO 414-F11-0-05 3699 AM-F10-0-0-5 A10-F21-0-05 3698 A4-F9-0-05 3695 AM-F6-0-05 3696 AM- F7-0-05 Customer Sample Identification Glastentaury, Signature Shawn Lag SL=sludge 627 Relinquished by: Comments, Special∕Requ o « Cancrete なな Matrix Code: DW=drinking water 2693 GW=groundwater 3690 せつのん Sample # Customer: \_ **Phoenix** Address: Sampler's

₽

Temp (



Monday, January 21, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY

Sample ID#s: BD13701, BD13703 - BD13706, BD13711 - BD13718, BD13720,

BD13723 - BD13724

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301

CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007

ME Lab Registration #CT-007

NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530

RI Lab Registration #63

VT Lab Registration #VT11301



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**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 10:05 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by:

see "By" below

\_aboratory Data

SDG ID: GBD13701

Phoenix ID: BD13701

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A3-F1-0.5-1.0

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 99 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 01/18/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 0.33 01/18/13 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.33 01/18/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 01/18/13 AW 3540C/8082 PCB-1260 ND 0.33 01/18/13 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 01/18/13 ΑW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1268 0.33 mg/kg **QA/QC Surrogates** % DCBP 101 % 01/18/13 AW 30 - 150 % % TCMX 97 % 01/18/13 30 - 150 %

> Page 1 of 32 Ver 1

Client ID: A3-F1-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13701

Page 2 of 32 Ver 1



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**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 10:15 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20

Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13701

Phoenix ID: BD13703

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A3-F3-0.5-1.0

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 98 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 01/17/13 AW 3540C/8082 ND ΑW 3540C/8082 PCB-1232 0.34 mg/kg 01/17/13 ND 01/17/13 ΑW 3540C/8082 PCB-1242 0.34 mg/kg ND 01/17/13 AW 3540C/8082 PCB-1248 0.34 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.34 01/17/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 01/17/13 ΑW 3540C/8082 ND 01/17/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 92 % 01/17/13 AW 30 - 150 % % TCMX 80 % 01/17/13 30 - 150 %

> Page 3 of 32 Ver 1

Client ID: A3-F3-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13703

Page 4 of 32 Ver 1



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**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 10:20 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 see "By" below

Rush Request: Standard Analyzed by:

\_aboratory Data

SDG ID: GBD13701

Phoenix ID: BD13704

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A3-F4-0.5-1.0

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 80 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.41 mg/kg 01/18/13 ΑW 3540C/8082 PCB-1221 ND 0.41 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1232 0.41 mg/kg ND 01/18/13 ΑW 3540C/8082 PCB-1242 0.41 mg/kg 0.86 01/18/13 AW 3540C/8082 PCB-1248 0.41 mg/kg 3540C/8082 PCB-1254 ND 0.41 mg/kg 01/18/13 AW 3540C/8082 PCB-1260 ND 0.41 01/18/13 ΑW mg/kg PCB-1262 ND 0.41 mg/kg 01/18/13 ΑW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1268 0.41 mg/kg **QA/QC Surrogates** % DCBP 102 % 01/18/13 AW 30 - 150 % % TCMX 97 % 01/18/13 30 - 150 %

> Page 5 of 32 Ver 1

Client ID: A3-F4-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13704

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**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 10:25 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20

Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13701

Phoenix ID: BD13705

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A3-F5-0.5-1.0

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 98 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 01/18/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 0.33 01/18/13 ΑW 3540C/8082 PCB-1242 mg/kg 0.61 0.33 01/18/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 01/18/13 AW 3540C/8082 PCB-1260 ND 0.33 01/18/13 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 01/18/13 ΑW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1268 0.33 mg/kg **QA/QC Surrogates** % DCBP 103 % 01/18/13 AW 30 - 150 % % TCMX 94 % 01/18/13 30 - 150 %

> Page 7 of 32 Ver 1

Client ID: A3-F5-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13705

Page 8 of 32 Ver 1



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**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 10:30 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13701

Phoenix ID: BD13706

Project ID: COMMERCIAL FOUNDRY

Client ID: A4-F1-0.5-1.0

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 98 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 01/18/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1232 0.34 mg/kg ND 01/18/13 ΑW 3540C/8082 PCB-1242 0.34 mg/kg ND 0.34 01/18/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 01/18/13 AW 3540C/8082 PCB-1260 ND 0.34 01/18/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 01/18/13 ΑW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 96 % 01/18/13 AW 30 - 150 % % TCMX 90 % 01/18/13 30 - 150 %

Page 9 of 32 Ver 1

Client ID: A4-F1-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13706

Page 10 of 32 Ver 1



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**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 10:55 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20

Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13701

Phoenix ID: BD13711

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A4-F6-0.5-1.0

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	98		%	01/15/13	JL	E160.3
Extraction for PCB	Completed			01/15/13	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	01/18/13	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	01/18/13	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	01/18/13	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	01/18/13	AW	3540C/8082
PCB-1248	0.51	0.33	mg/kg	01/18/13	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	01/18/13	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	01/18/13	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	01/18/13	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	01/18/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	97		%	01/18/13	AW	30 - 150 %
% TCMX	92		%	01/18/13	AW	30 - 150 %

Page 11 of 32 Ver 1

Client ID: A4-F6-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13711

Page 12 of 32 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 11:00 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13701

Phoenix ID: BD13712

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A4-F7-0.5-1.0

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 99 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 01/17/13 AW 3540C/8082 ND ΑW 3540C/8082 PCB-1232 0.33 mg/kg 01/17/13 ND 0.33 01/17/13 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.33 01/17/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.33 01/17/13 AW mg/kg PCB-1262 ND 0.33 mg/kg 01/17/13 AW 3540C/8082 ND 01/17/13 ΑW 3540C/8082 PCB-1268 0.33 mg/kg **QA/QC Surrogates** % DCBP 82 % 01/17/13 AW 30 - 150 % % TCMX 82 % 01/17/13 30 - 150 %

> Page 13 of 32 Ver 1

Client ID: A4-F7-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13712

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 11:02 Received by: Location Code: **GZA-PCB** SW 12/28/12 15:20 Rush Request:

Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GBD13701

Phoenix ID: BD13713

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A5-F1-0.5-1.0

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	96		%	01/15/13	JL	E160.3
Extraction for PCB	Completed			01/15/13	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.34	mg/kg	01/17/13	AW	3540C/8082
PCB-1221	ND	0.34	mg/kg	01/17/13	AW	3540C/8082
PCB-1232	ND	0.34	mg/kg	01/17/13	AW	3540C/8082
PCB-1242	ND	0.34	mg/kg	01/17/13	AW	3540C/8082
PCB-1248	ND	0.34	mg/kg	01/17/13	AW	3540C/8082
PCB-1254	ND	0.34	mg/kg	01/17/13	AW	3540C/8082
PCB-1260	ND	0.34	mg/kg	01/17/13	AW	3540C/8082
PCB-1262	ND	0.34	mg/kg	01/17/13	AW	3540C/8082
PCB-1268	ND	0.34	mg/kg	01/17/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	84		%	01/17/13	AW	30 - 150 %
% TCMX	87		%	01/17/13	AW	30 - 150 %

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Client ID: A5-F1-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13713

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 11:04 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13701

Phoenix ID: BD13714

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A5-F2-0.5-1.0

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 99 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 01/18/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 0.33 01/18/13 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.33 01/18/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 01/18/13 AW 3540C/8082 PCB-1260 ND 0.33 01/18/13 AW mg/kg PCB-1262 ND 0.33 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1268 0.33 mg/kg **QA/QC Surrogates** % DCBP 96 % 01/18/13 AW 30 - 150 % % TCMX 87 % 01/18/13 30 - 150 %

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Client ID: A5-F2-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13714

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**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 11:06 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82 Laboratory Data

SDG ID: GBD13701

Phoenix ID: BD13715

Project ID: COMMERCIAL FOUNDRY

Client ID: A5-F3-0.5-1.0

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 97 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 01/18/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1232 0.34 mg/kg ND 01/18/13 ΑW 3540C/8082 PCB-1242 0.34 mg/kg ND 0.34 01/18/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 01/18/13 AW 3540C/8082 PCB-1260 ND 0.34 01/18/13 AW mg/kg PCB-1262 ND 0.34 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 102 % 01/18/13 AW 30 - 150 % % TCMX 84 % 01/18/13 30 - 150 %

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Client ID: A5-F3-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13715

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**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 11:08 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13701

Phoenix ID: BD13716

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A5-F4-0.5-1.0

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 96 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 01/17/13 AW 3540C/8082 ND ΑW 3540C/8082 PCB-1232 0.34 mg/kg 01/17/13 ND 01/17/13 ΑW 3540C/8082 PCB-1242 0.34 mg/kg ND 01/17/13 AW 3540C/8082 PCB-1248 0.34 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.34 01/17/13 AW mg/kg PCB-1262 ND 0.34 mg/kg 01/17/13 AW 3540C/8082 ND 01/17/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 77 % 01/17/13 AW 30 - 150 % % TCMX 82 % 01/17/13 30 - 150 %

> Page 21 of 32 Ver 1

Client ID: A5-F4-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13716

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**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 11:10 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13701

Phoenix ID: BD13717

Project ID: COMMERCIAL FOUNDRY

Client ID: A5-F5-0.5-1.0

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 96 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 01/18/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1232 0.34 mg/kg ND 01/18/13 ΑW 3540C/8082 PCB-1242 0.34 mg/kg ND 0.34 01/18/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 01/18/13 AW 3540C/8082 PCB-1260 ND 0.34 01/18/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 01/18/13 ΑW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 100 % 01/18/13 AW 30 - 150 % % TCMX 93 % 01/18/13 30 - 150 %

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Client ID: A5-F5-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13717

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**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 11:50 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13701

Phoenix ID: BD13718

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-F1-0.5-1.0

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 97 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 01/18/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 0.33 01/18/13 ΑW 3540C/8082 PCB-1242 mg/kg 0.33 0.33 01/18/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 01/18/13 AW 3540C/8082 PCB-1260 ND 0.33 01/18/13 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 01/18/13 ΑW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1268 0.33 mg/kg **QA/QC Surrogates** % DCBP 102 % 01/18/13 AW 30 - 150 % % TCMX 90 % 01/18/13 30 - 150 %

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Client ID: A10-F1-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13718

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 11:54 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20

Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13701

Phoenix ID: BD13720

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F3-0.5-1.0

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 98 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 01/17/13 AW 3540C/8082 ND ΑW 3540C/8082 PCB-1232 0.34 mg/kg 01/17/13 ND 01/17/13 ΑW 3540C/8082 PCB-1242 0.34 mg/kg ND 01/17/13 AW 3540C/8082 PCB-1248 0.34 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.34 01/17/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 01/17/13 ΑW 3540C/8082 ND 01/17/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 96 % 01/17/13 AW 30 - 150 % % TCMX 88 % 01/17/13 30 - 150 %

> Page 27 of 32 Ver 1

Client ID: A10-F3-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13720

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 12:00 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13701

Phoenix ID: BD13723

Project ID: COMMERCIAL FOUNDRY

Client ID: A10F6-0.5-1.0

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 97 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 01/18/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1232 0.34 mg/kg ND 01/18/13 ΑW 3540C/8082 PCB-1242 0.34 mg/kg 0.43 01/18/13 AW 3540C/8082 PCB-1248 0.34 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 01/18/13 AW 3540C/8082 PCB-1260 ND 0.34 01/18/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 01/18/13 ΑW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 99 % 01/18/13 AW 30 - 150 % % TCMX 95 % 01/18/13 30 - 150 %

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Client ID: A10F6-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13723

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 12:30 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13701

Phoenix ID: BD13724

Project ID: COMMERCIAL FOUNDRY

Client ID: A10F7-0.5-1.0

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 95 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.35 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.35 mg/kg 01/17/13 AW 3540C/8082 ND ΑW 3540C/8082 PCB-1232 0.35 mg/kg 01/17/13 ND 0.35 01/17/13 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.35 01/17/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.35 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.35 01/17/13 ΑW mg/kg PCB-1262 ND 0.35 mg/kg 01/17/13 ΑW 3540C/8082 ND 01/17/13 ΑW 3540C/8082 PCB-1268 0.35 mg/kg **QA/QC Surrogates** % DCBP 93 % 01/17/13 AW 30 - 150 % % TCMX 84 % 01/17/13 30 - 150 %

Page 31 of 32 Ver 1

Client ID: A10F7-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13724

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## QA/QC Report

January 21, 2013

### QA/QC Data

SDG I.D.: GBD13701

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits
QA/QC Batch 218604, QC Sample No: BD12683 (BD13701, BD13703, BD13704, BD13705, BD13706, BD13711, BD13712,									
BD13713, BD13714, BD13715, BD13716, BD13717, BD13718, BD13720, BD13723)									
Polychlorinated Bipher	_ <del>_</del>								
PCB-1016	ND	85	84	1.2	86	83	3.6	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	82	83	1.2	83	79	4.9	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	77	78	77	1.3	77	73	5.3	30 - 150	30
% TCMX (Surrogate Rec)	66	88	84	4.7	91	90	1.1	30 - 150	30
QA/QC Batch 218605, QC Sa	ample No: BD13724 (BD137	24)							
Polychlorinated Bipher	<u> ryls - Solid</u>								
PCB-1016	ND	89	86	3.4				40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	85	83	2.4				40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	79	80	77	3.8				30 - 150	30
% TCMX (Surrogate Rec)	79	90	86	4.5				30 - 150	30
Comment:									
A LCS and LCS Duplicate were	performed instead of a matrix sp	pike and matrix spike	duplicate	•					

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria Intf - Interference Phyllis Shiller, Laboratory Director

January 21, 2013

Monday, January 21, 2013

**Sample Criteria Exceedences Report GBD13701 - GZA-PCB** 

State: CT

Requested Criteria: None

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

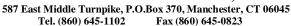
<sup>\*\*\*</sup> No Data to Display \*\*\*

### Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY **Project Number:** Laboratory Sample ID(s): BD13701, BD13702, BD13703, BD13704, BD13705, BD13706, BD13707, BD13708, BD13709, BD13710, BD13711, BD13712, BD13713, BD13714, BD13715, BD13716, BD13717, BD13718, BD13719, BD13720, BD13721, BD13722, BD13723, BD13724 **Sampling Date(s):** 12/27/2012 **RCP Methods Used:** 6010 1311/1312 7000 7196 7470/7471 8081 ☐ EPH TO15 **✓** 8082 8270 9010/9012 □ VPH 8151 8260 ETPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) 2. Were all samples received by the laboratory in a condition consistent with that ✓ Yes No. described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No □ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. Yes V No Were these reporting limits met? 5b. **✓** NA ☐ Yes ☐ No For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No □ NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ☐ Yes 🗹 No □ NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Monday, January 21, 2013 Authorized Printed Name: Maryam Taylor Signature:

Position: Project Manager







## **RCP Certification Report**

January 21, 2013

**SDG I.D.: GBD13701** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 01/18/13-1 (BD13701, BD13704, BD13705, BD13706, BD13711,

BD13714, BD13715, BD13717, BD13718, BD13723)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/18/2013

**Instrument:** Au-ecd3 01/17/13-1 (BD13712)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 1/17/2013

**Instrument:** Au-ecd35 01/17/13-1 (BD13713, BD13716)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/17/2013

**Instrument:** Au-ecd5 01/17/13-1 (BD13703, BD13720, BD13724)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none









## **RCP Certification Report**

January 21, 2013

**SDG I.D.: GBD13701** 

Printed Name Adam Werner Position: Chemist 1/17/2013

**QC** Comments: QC Batch 18604 01/15/13 (BD13701, BD13703, BD13704, BD13705, BD13706,

BD13711, BD13712, BD13713, BD13714, BD13715, BD13716, BD13717,

BD13718, BD13720, BD13723)

**QC Comments:** QC Batch 18605 01/15/13 (BD13724)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

#### QC (Site Specific)

----- Sample No: BD13724, QA/QC Batch: 218605 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria. **QC (Batch Specific)** 

----- Sample No: BD12683, QA/QC Batch: 218604 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**

The samples in this delivery group were received at  $6^{\circ}$ C. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

Temp (_0 Pg2 of 5  Data Delivery:  □ Fax #:  ▼ Email: Simes, Hatton@gza. Com  ct P.O: 43369.82  e #:	MCP Cert.    Second   Control   Cont
Project Phone Fax#	Turnaround:   CTIRI   MA   SWART   CON
587 East Middle Tumpike, P.O. Box 370, Manchester, CT 06040 Email: service@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 Project: Commercial Foundary Report to: Sim Hutten	Analysis  Analys
TOHNIX COMMENTAL INC.  GZA  GES Winding Brook Dr  C-19849 Dry  C-19849	wastewater S=soil/soild 0=oth udge  Wastewater S=soil/soild 0=oth udge  V=0.5-1.0 0  V=0.5-1.0 0
Environmental  Customer: GZA  Address: GSS W	Sampler's Shunn By Signature Shunn By Sample # Custo Sample # Les 12701 A3-F1 12702 A3-F1 12702 A4-F1 12702 A4

Temp (0 Pg 3 of 5  Data Delivery:    Fax #:   K   Email Emes   Lythan 0929.com	Project P.O: <u>43364,82</u> Phone #: Fax #:	THOO STATE OF THE OF TH	PHOR PROCEST TO BY TO STATE OF THE PROCEST TO BY TO STATE OF THE PROCEST TO ST					MCP Cert.	A eSMART
TODY RECORD  sox 370, Manchester, CT 06040  som Fax (860) 645-0823  (860) 645-8726	Founday							CT/RI RCP Cert. GW Protect. GA Mobility S* GB Mobility SW Protect.	
CHAIN OF CUSTODY RECORD 587 East Middle Tumpike, P.O. Box 370, Manchester, CT 06040 Email: service@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Project: Commercial Report to: Jim Hutte Invoice to: Jim Hutte	Date 12 1/12 Request	Time d Sampled	12/21/10 NOL X + X + 12/21/21/21/21 X + X + 12/21/21/21/21/21/21/21/21/21/21/21/21/2	7 X X X X X X X X X X X X X X X X X X X	2(27/2 1152 X + 127/2 1154 X + 127/2	2/27/12 1158 X + 2/27/12 1158 X + 2/27/12 1200 X + 2/27/12 1230 X \	Date: Time:   Time:	
PHOENIX Environmental Laboratories, Inc.	655 Winding Brook Dr Glastenbury CT 06033	ple - Information - Identification	il/solid <b>O</b> =oth	A5-F1-05-LO O rabile A5-F2-05-LO O rabile A5-F3-05-LO O rabile	000	000	0000	424 624 151.186.	Comments, Special Requirements or Regulations:  O = COncrete  Face = Sanples Punce on Hold
PHC Environme	Customer: <b>(524</b> ) Address: <b>(555</b> ) <b>(5-195</b> )	Sampler's Signature Shaunn Matrix Code:	drinking water groundwater noenix ample #	13113	21151 171751			Relinquished by	Comments, Special Requision of Concrete



#### adslxineonq - iddoc

From: Benjamin Graham [Benjamin.Graham@gza.com]

Sent: Tuesday, January 15, 2013 8:20 AM

To: bobbi@phoenixlabs.com

Cc: James Hutton

**Subject:** commercial foundry additional samples Hi Bobbi. I would like to run some additional samples from our Commercial Foundry job (43369.82). Could you run concrete floor samples for PCBs by manual soxhlet for the following samples you have on

:plod

A14-F-5(0.5-1")\_ ("1-2.0)2-7-41A FSP3-("1-2.0)05-7-01A a SISI -("1-2.0)e1-7-01A GCIC: - ("I-2.0)81-7-01A PSISI -("I-2.0) \ I-7-01A CCICI-("1-2.0)21-7-01A -62121 - ("1-2.0)21-7-01A PETE1 -("I-Z.0)SI-7-01A 86 FC1 - ("I-2.0)II-7-0IA PETSI- ("1-2.0)7-7-01A EG[2] - ("I-2.0) 3-7-01A O & 61 21 - ("1-2.0) E-7-01A A10-F-1(0.5-1")-13718 [16] - ("1-2.0)2-7-2A 11-8.0)4-7-8A CIICI - ("1-2.0)E-7-2AP1[2] -("1-2.0)2-7-2A E1 [ S 1 - ("1-2.0) 1-7-2A 61721- ("I-2.0)7-7-4A A4-F-6(0,5-1")- 13711 DO1-21 ("1-2.0)1-3-4A 20121- ("1-2.0)2-7-EA HOLE1- ("1-2.0)4-7-EA EOLS 1 - ("1-2.0) E-7-EA 1075 - ("I-2.0) I-7-EA

Thank you. Please give myself or Jim Hutton a call with any questions.

Benjamin A. Graham Envivonmental Scientist GZA GeoEnvivonmental Inc. Glastonbury CT 06033 Office: (860) 858-3129 Cell: (860) 828-3129 Fax: (860) 652-8590

26121 101.21 Bobbi - Phoenixlabs

Benjamin Graham [Benjamin.Graham@gza.com] From:

Tuesday, January 15, 2013 9:42 AM :juas

bobbi@phoenixlabs.com :oT

James Hutton :၁၅

Subject: more comm foundry add ons (43369.82)

Bobbi, could we also run: 45021

A14-5-18 (5-5.25') & (5.75-6'), A14-5-19 (5-5.25') and A14-5-20 (5-5.25') for PCBs by Manual Soxhlet

09081

F20.61 A1-S-4 (0-6") for PAHs and ETPH

91851-2-1-S-6 ('S-O) 3-2-1A

Thanks again!

Office: (860) 858-3129 Glastonbury CT 06033 655 Winding Brook Drive, Suite 402 GZA GeoEnvironmental Inc. Environmental Scientist Benjamin A. Graham

Fax: (860)652-8590 Cell: (860)227-6971

Proactive by Design

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For information about GZA GeoEnvironmental, Inc. and its services, please visit our website at <u>www.gza.com</u>.



Monday, January 21, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY

Sample ID#s: BD13728 - BD13729, BD13732 - BD13737, BD13741

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 12:38 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20

Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13725

Phoenix ID: BD13728

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F11-0.5-1.0

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 98 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 01/17/13 AW 3540C/8082 ND ΑW 3540C/8082 PCB-1232 0.33 mg/kg 01/17/13 ND 0.33 01/17/13 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.33 01/17/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.33 01/17/13 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 01/17/13 ΑW 3540C/8082 ND 01/17/13 ΑW 3540C/8082 PCB-1268 0.33 mg/kg **QA/QC Surrogates** % DCBP 74 % 01/17/13 AW 30 - 150 % % TCMX 89 % 01/17/13 30 - 150 %

> Page 1 of 18 Ver 1

Client ID: A10-F11-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13728

Page 2 of 18 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 12:40 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GBD13725

Phoenix ID: BD13729

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F12-0.5-1.0

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 98 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 01/17/13 AW 3540C/8082 ND ΑW 3540C/8082 PCB-1232 0.33 mg/kg 01/17/13 ND 0.33 01/17/13 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.33 01/17/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.33 01/17/13 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 01/17/13 ΑW 3540C/8082 ND 01/17/13 ΑW 3540C/8082 PCB-1268 0.33 mg/kg **QA/QC Surrogates** % DCBP 69 % 01/17/13 AW 30 - 150 % % TCMX 84 % 01/17/13 30 - 150 %

Page 3 of 18 Ver 1

Client ID: A10-F12-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13729

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**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 13:10 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13725

Phoenix ID: BD13732

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-F15-0.5-1.0

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 98 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 01/18/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1232 0.34 mg/kg ND 01/18/13 ΑW 3540C/8082 PCB-1242 0.34 mg/kg 0.68 01/18/13 AW 3540C/8082 PCB-1248 0.34 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 01/18/13 AW 3540C/8082 PCB-1260 ND 0.34 01/18/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 01/18/13 ΑW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 96 % 01/18/13 AW 30 - 150 % % TCMX 92 % 01/18/13 30 - 150 %

Page 5 of 18 Ver 1

Client ID: A10-F15-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13732

Page 6 of 18 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 13:12 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13725

Phoenix ID: BD13733

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-F16-0.5-1.0

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 98 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 01/17/13 AW 3540C/8082 ND ΑW 3540C/8082 PCB-1232 0.34 mg/kg 01/17/13 ND 01/17/13 ΑW 3540C/8082 PCB-1242 0.34 mg/kg ND 01/17/13 AW 3540C/8082 PCB-1248 0.34 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.34 01/17/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 01/17/13 ΑW 3540C/8082 ND 01/17/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 74 % 01/17/13 AW 30 - 150 % % TCMX 85 % 01/17/13 30 - 150 %

Page 7 of 18 Ver 1

Client ID: A10-F16-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13733

Page 8 of 18 Ver 1



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**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 13:14 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20

Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13725

Phoenix ID: BD13734

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F17-0.5-1.0

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 97 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 01/17/13 AW 3540C/8082 ND ΑW 3540C/8082 PCB-1232 0.34 mg/kg 01/17/13 ND 01/17/13 ΑW 3540C/8082 PCB-1242 0.34 mg/kg ND 0.34 01/17/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.34 01/17/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 01/17/13 ΑW 3540C/8082 ND 01/17/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 73 % 01/17/13 AW 30 - 150 % % TCMX 79 % 01/17/13 30 - 150 %

> Page 9 of 18 Ver 1

Client ID: A10-F17-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13734

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**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 13:16 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Analyzed by:

Standard see "By" below

\_aboratory Data

SDG ID: GBD13725

Phoenix ID: BD13735

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-F18-0.5-1.0

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 98 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 01/17/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 01/17/13 AW 3540C/8082 ND ΑW 3540C/8082 PCB-1232 0.33 mg/kg 01/17/13 ND 0.33 01/17/13 ΑW 3540C/8082 PCB-1242 mg/kg ND 0.33 01/17/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 01/17/13 AW 3540C/8082 PCB-1260 ND 0.33 01/17/13 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 01/17/13 ΑW 3540C/8082 ND 01/17/13 ΑW 3540C/8082 PCB-1268 0.33 mg/kg **QA/QC Surrogates** % DCBP 70 % 01/17/13 AW 30 - 150 % % TCMX 83 % 01/17/13 30 - 150 %

> Page 11 of 18 Ver 1

Client ID: A10-F18-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13735

Page 12 of 18 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 13:18 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

Laboratory Data

SDG ID: GBD13725

Phoenix ID: BD13736

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-F19-0.5-1.0

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 93 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.36 mg/kg 01/18/13 ΑW 3540C/8082 PCB-1221 ND 0.36 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1232 0.36 mg/kg ND 01/18/13 ΑW 3540C/8082 PCB-1242 0.36 mg/kg 0.43 01/18/13 AW 3540C/8082 PCB-1248 0.36 mg/kg 3540C/8082 PCB-1254 ND 0.36 mg/kg 01/18/13 AW 3540C/8082 PCB-1260 ND 0.36 01/18/13 ΑW mg/kg PCB-1262 ND 0.36 mg/kg 01/18/13 ΑW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1268 0.36 mg/kg **QA/QC Surrogates** % DCBP 98 % 01/18/13 AW 30 - 150 % % TCMX 92 % 01/18/13 30 - 150 %

Page 13 of 18 Ver 1

Client ID: A10-F19-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13736

Page 14 of 18 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 13:40 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13725

Phoenix ID: BD13737

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-F20-0.5-1.0

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 97 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 01/18/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1232 0.34 mg/kg ND 01/18/13 ΑW 3540C/8082 PCB-1242 0.34 mg/kg ND 0.34 01/18/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 01/18/13 AW 3540C/8082 PCB-1260 ND 0.34 01/18/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 01/18/13 ΑW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 101 % 01/18/13 AW 30 - 150 % % TCMX 90 % 01/18/13 30 - 150 %

Page 15 of 18 Ver 1

Client ID: A10-F20-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13737

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 21, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: SD 12/27/12 14:18 **GZA-PCB** Received by: Location Code: SW 12/28/12 15:20

Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13725

Phoenix ID: BD13741

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A14-F5-0.5-1.0

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 94 % 01/15/13 E160.3 JL Extraction for PCB Completed 01/15/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.35 mg/kg 01/18/13 ΑW 3540C/8082 PCB-1221 ND 0.35 mg/kg 01/18/13 AW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1232 0.35 mg/kg ND 0.35 01/18/13 ΑW 3540C/8082 PCB-1242 mg/kg 0.35 01/18/13 AW 3540C/8082 PCB-1248 1.4 mg/kg 3540C/8082 PCB-1254 ND 0.35 mg/kg 01/18/13 AW 3540C/8082 PCB-1260 ND 0.35 01/18/13 ΑW mg/kg PCB-1262 ND 0.35 mg/kg 01/18/13 ΑW 3540C/8082 ND 01/18/13 ΑW 3540C/8082 PCB-1268 0.35 mg/kg **QA/QC Surrogates** % DCBP 96 % 01/18/13 AW 30 - 150 % % TCMX 90 % 01/18/13 30 - 150 %

> Page 17 of 18 Ver 1

Client ID: A14-F5-0.5-1.0

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 21, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD13741

Page 18 of 18 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

## QA/QC Report

January 21, 2013

### QA/QC Data

SDG I.D.: GBD13725

%

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits	
QA/QC Batch 218605, QC Sample No: BD13724 (BD13728, BD13729, BD13732, BD13733, BD13734, BD13735, BD13736, BD13737, BD13741)										
Polychlorinated Biphenyls - Solid										
PCB-1016	ND	89	86	3.4				40 - 140	30	
PCB-1221	ND							40 - 140	30	
PCB-1232	ND							40 - 140	30	
PCB-1242	ND							40 - 140	30	
PCB-1248	ND							40 - 140	30	
PCB-1254	ND							40 - 140	30	
PCB-1260	ND	85	83	2.4				40 - 140	30	
PCB-1262	ND							40 - 140	30	
PCB-1268	ND							40 - 140	30	
% DCBP (Surrogate Rec)	79	80	77	3.8				30 - 150	30	
% TCMX (Surrogate Rec)	79	90	86	4.5				30 - 150	30	
Comment:										
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.										

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis Shiller, Laboratory Director

January 21, 2013

Monday, January 21, 2013

**Sample Criteria Exceedences Report GBD13725 - GZA-PCB** 

State: CT

Requested Criteria: None

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

### Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY **Project Number:** Laboratory Sample ID(s): BD13725, BD13726, BD13727, BD13728, BD13729, BD13730, BD13731, BD13732, BD13733, BD13734, BD13735, BD13736, BD13737, BD13738, BD13739, BD13740, BD13741, BD13742, BD13743, BD13744, BD13745, BD13746, BD13747 **Sampling Date(s):** 12/27/2012 **RCP Methods Used:** 6010 1311/1312 7000 7196 7470/7471 8081 ☐ EPH TO15 **✓** 8082 8270 9010/9012 □ VPH 8151 8260 ETPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) 2. Were all samples received by the laboratory in a condition consistent with that ✓ Yes No. described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No □ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. Yes V No Were these reporting limits met? 5b. **✓** NA ☐ Yes ☐ No For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No □ NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ☐ Yes 🗹 No □ NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Monday, January 21, 2013 Authorized Printed Name: Maryam Taylor Signature: Position: Project Manager



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



## **RCP Certification Report**

January 21, 2013

**SDG I.D.: GBD13725** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 01/18/13-1 (BD13732, BD13736, BD13737, BD13741)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/18/2013

**Instrument:** Au-ecd35 01/17/13-1 (BD13728, BD13729, BD13733, BD13734, BD13735)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/17/2013

**QC Comments:** QC Batch 18605 01/15/13 (BD13728, BD13729, BD13732, BD13733, BD13734,

BD13735, BD13736, BD13737, BD13741)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

#### QC (Batch Specific)

----- Sample No: BD13724, QA/QC Batch: 218605 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**

The samples in this delivery group were received at  $6^{\circ}$ C. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)



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# **RCP Certification Report**

January 21, 2013

**SDG I.D.: GBD13725** 

	CHAIN OF CUSTODY RECORD	Y RECORD	Temp (0° Pg 4 of 5
HOEINIX	587 East Middle Tumpike, P.O. Box 370, Manchester, CT 06040 Email: service@phoenixlabs.com Fax (860) 645-0823	, Manchester, CT 06040 Fax (860) 645-0823	Data Delivery:
Environmental Laboratories, Inc.	Client Services (860) 645-8726	645-8726	K Email: James Hother Ogza, com
Customer: 624	Project: Commercial F	- acaday	Project P.O. 43369.87
Address: 655 Wheling Break Dr	土		Phone #:
Glaston Lry CT 00033	Invoice to: Jim Huiton		Fax #:
Client Sample - Information - Identification			
Sampler's Signature Shawn Drag Date 171/12	Ana Rec		14000 11 27 SERINGS
Matrix Code:  DW=drinking water WW=wastewater S=soil/solid O=other  GW=groundwater SL=sludge A=air	AS MINON		The state of the s
Phoenix Customer Sample Sample Time Sample # Identification Matrix Sampled Sampled	14	3.50 105	100 81 80 100 100 100 100 100 100 100 10
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13727 A10-F10-05-1,0 6 while 1236	7		
A10-F11-0,5-1,0 0 retrie	× ×		
A10-F12-05-1,0 0 patalle 12	× × ×		
13730 410-F13-05510 0 1267/101242	X		
A10-F14-0,5-1,0 0	×.		
410-F15-0.5-1.0 0	× × × ;		
1410-F16-0-5-1.0 () netric 131	× ×		
A10-F17-6,5-1.6 0	XX		
35 AIO-FI8-05-110 0 MUIN	×, ×,		
15756 410-FR-65-10 0 1441/218	XX		
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	08:01	GA Mobility GB Mobility	GW-2 GS/Key
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Jaer		Ind. Vol.	Data
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First is sapered function of Moch	State	State where samples were collected: 📿	NJ Hazsite EDD  R Phoenix Std Report  Other

Temp (60 Pg 5 of 5	Data Delivery:	A Email James Hatteral Gran, Com	Project P.O: 43369, 82	Phone #:	Нах#:	THOO IS A SERVING TO THE PARTY OF THE PARTY		08 8 140 8 16 16 16 16 16 16 16 16 16 16 16 16 16												MCP Cert.		S-1 Couls	S-2 S-3 <u>Data Package</u> MWRA eSMART		/-         	
ODY RECORD	x 370, Manchester, CT 06040	om Fax (860) 645-0823 860) 645-8726	al Founday	V	How			\$ 05/18												Urnaround: CI/KI   MA	2 Days* Gw Protect. 3 Days* GA Mobility	d GB Mobility SW Protect.	Res. Vol. Ind. Vol. Res. Criteria		State where samples were collected: <u>C</u>	
CHAIN OF CUSTODY RECORD	587 East Middle Tumpike, P.O. Box 370, Manchester, CT 06040	Email: service@phoenixiabs.com Client Services (860)	Project: Commercia		Invoice to: O fm 15	Analysis Request	le nota	13	× ×	×	×	× × ×	× ×	. *	× × × × × × × × × × × × × × × × × × ×	× ×	×	×	× × α	Date: IIme:	2)/82/	15 30 Market				
		s, Inc.		747	المنافعين	Date/2/27/12	S=soil/solid O=other A=air	Sample Date Time Matrix Sampled Sampled	0	0	0	3 0 ntaln 1352	0	(जीयका 0	0 12/12/12	0 0 12/12/12 1424	1 m/m	O retestal	0 0 12/27/4 1430	Accepted by.	X	order of	<i>&gt;</i> >>		ed as the s	
		Environmental Laboratories,	<b>\</b>	A L	Clest Sample - Information - Identification	un Dung	WW=wastewater SL=sludge	Customer Sample Identification	A10-F20-05-1,0	38 A10-F21-0.5-1.0	A10-F22-05-10	410-F23-0-5-1.0	AIH-F5-03-1.0	AH-F6-05-10	44.F7-05-1.0	A14-F8-05-1.0	A14-F9-0,5-1,0	A14-F10-05-10	A14-F11-0-5-10	hed by:		XX T	Comments, Special Requirentents or Regulations:		Freeze sapls pened	
	PHC	Environme	Customer: <b>G2</b>	Address: 655	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Sampler's Signature	Matrix Code: DW=drinking water GW=groundwater	Phoenix Sample #	13737	13138		240	$\Delta$	13742	13743	13744	13745	13746	13747	Relinquished by		K	Comments, Special	)	י הפשען	



# edslxinəod9 - iddoد

From: Benjamin Graham [Benjamin.Graham@gza.com]

Sent: Tuesday, January 15, 2013 8:20 AM

To: bobbi@phoenixlabs.com

Cc: James Hutton

Subject: commercial foundry additional samples

Hi Bobbi. I would like to run some additional samples from our Commercial Foundry job (43369.82). Could you run concrete floor samples for PCBs by manual soxhlet for the following samples you have on hold:

1751+H-61 -("1-2.0)2-7-41A FSF21-("1-2.0)05-7-01A 410-F-19(0.5-1") - 13-13-01A CC151 - ("1-2.0)81-7-01A 12-4-17(0.5-1" -("I-2.0)\7I-7-0IA CEF61~("1-2.0)21-7-01A 62121 ("I-2.0)21-7-01A PSTE1 -("1-2.0)SI-7-01A 86 FC1 - ("I-2.0)II-7-0IA PE[21- ("1-2.0)7-7-01A ごとしている。("1-2.0) 3-3-01A O & ( 2) - ("I-2.0) E-7-01A 6) [8] - ("I-2.0) I-7-01A TITE1-("I-2.0)2-7-2A 1161 -("I-2.0)4-7-2A C11C1 - ("1-2.0)E-7-2APITS1-("1-2.0)S-7-2A EITE 1-("1-2.0)1-7-2A 61551- ("I-2.0) 7-7-4A A4-F-6(0.5-1") - 13711 **ふるいと」 -("1-2.0)1-7-4A** 20121- ("1-2.0)2-7-EA POTS1-("1-2.0)4-7-EA 20121-("I-2.0) E-7-EA 10/51 ~ ("1-2.0) 1-7-EA

Thank you. Please give myself or Jim Hutton a call with any questions.

Benjamin A. Graham Environmental Scientist 655 Winding Brook Drive, Suite 402 Glastonbury CT 06033 Office: (860) 858-3129 Fax: (860)652-8590

26151 10121 09091

# Bobbi - Phoenixlabs

Benjamin Graham [Benjamin.Graham@gza.com] From:

Tuesday, January 15, 2013 9:42 AM :juas

bobbi@phoenixlabs.com :oT

James Hutton :၁၅

Subject: more comm foundry add ons (43369.82)

Bobbi, could we also run; 2057 13057 13000, in 13057 13057 130000 A14-5-18 (5-5.25') & (5.75-6'), A14-5-19 (5-5.25') and A14-5-20 (5-5.25') for PCBs by Manual Soxhlet

zHA9 101 ('S-0) 8-2-1A E80.61 H9T3 bns 2HA9 101 ("8-0) 4-2-1A

SLSSIN

Thanks again!

Fax: (860)652-8590 Cell: (860)227-6971 Office: (860) 858-3129 Glastonbury CT 06033 655 Winding Brook Drive, Suite 402 GZA GeoEnvironmental Inc. Environmental Scientist Benjamin A. Graham

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For information about GZA GeoEnvironmental, Inc. and its services, please visit our website at <u>www.gza.com</u>.



Tuesday, January 08, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY

Sample ID#s: BD13859 - BD13875

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/28/12 8:15 Received by: Location Code: **GZA-PCB** LB 12/28/12 15:04 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13859

Phoenix ID: BD13859

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A14-PW-1

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.81	mg/kg	01/02/13	AW	3540C/8082
PCB-1221	ND	0.81	mg/kg	01/02/13	AW	3540C/8082
PCB-1232	ND	0.81	mg/kg	01/02/13	AW	3540C/8082
PCB-1242	ND	0.81	mg/kg	01/02/13	AW	3540C/8082
PCB-1248	*	0.81	mg/kg	01/02/13	AW	3540C/8082
PCB-1254	*	0.81	mg/kg	01/02/13	AW	3540C/8082
PCB-1260	ND	0.81	mg/kg	01/02/13	AW	3540C/8082
PCB-1262	ND	0.81	mg/kg	01/02/13	AW	3540C/8082
PCB-1268	ND	0.81	mg/kg	01/02/13	AW	3540C/8082
Total PCBs	2.8	0.81	mg/kg	01/02/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	93		%	01/02/13	AW	30 - 150 %
% TCMX	88		%	01/02/13	AW	30 - 150 %

Page 1 of 31 Ver 1

Client ID: A14-PW-1

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13859

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/28/12 7:30 Received by: Location Code: **GZA-PCB** LB 12/28/12 15:04 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13859

Phoenix ID: BD13860

Project ID: COMMERCIAL FOUNDRY

Client ID: A14-PW-3

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.76	mg/kg	01/03/13	AW	3540C/8082
PCB-1221	ND	0.76	mg/kg	01/03/13	AW	3540C/8082
PCB-1232	ND	0.76	mg/kg	01/03/13	AW	3540C/8082
PCB-1242	ND	0.76	mg/kg	01/03/13	AW	3540C/8082
PCB-1248	*	0.76	mg/kg	01/03/13	AW	3540C/8082
PCB-1254	ND	0.76	mg/kg	01/03/13	AW	3540C/8082
PCB-1260	ND	0.76	mg/kg	01/03/13	AW	3540C/8082
PCB-1262	ND	0.76	mg/kg	01/03/13	AW	3540C/8082
PCB-1268	ND	0.76	mg/kg	01/03/13	AW	3540C/8082
Total PCBs	6.7	0.76	mg/kg	01/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	104		%	01/03/13	AW	30 - 150 %
% TCMX	93		%	01/03/13	AW	30 - 150 %

Page 3 of 31 Ver 1

Client ID: A14-PW-3

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13860

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOLIDCollected by:12/28/128:45Location Code:GZA-PCBReceived by:LB12/28/1215:04Rush Request:StandardAnalyzed by:analyzed by:analyzed by:analyzed by:

Rush Request: Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GBD13859

Phoenix ID: BD13861

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A14-PW-6

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	2.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1221	ND	2.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1232	ND	2.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1242	ND	2.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1248	*	2.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1254	*	2.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1260	ND	2.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1262	ND	2.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1268	ND	2.8	mg/kg	01/03/13	AW	3540C/8082
Total PCBs	14	2.8	mg/kg	01/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	141		%	01/03/13	AW	30 - 150 %
% TCMX	127		%	01/03/13	AW	30 - 150 %

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Client ID: A14-PW-6

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13861

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/28/12 9:00 Received by: Location Code: **GZA-PCB** LB 12/28/12 15:04

Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13859

Phoenix ID: BD13862

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A14-PW-5

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.58	mg/kg	01/02/13	AW	3540C/8082
PCB-1221	ND	0.58	mg/kg	01/02/13	AW	3540C/8082
PCB-1232	ND	0.58	mg/kg	01/02/13	AW	3540C/8082
PCB-1242	ND	0.58	mg/kg	01/02/13	AW	3540C/8082
PCB-1248	*	0.58	mg/kg	01/02/13	AW	3540C/8082
PCB-1254	*	0.58	mg/kg	01/02/13	AW	3540C/8082
PCB-1260	ND	0.58	mg/kg	01/02/13	AW	3540C/8082
PCB-1262	ND	0.58	mg/kg	01/02/13	AW	3540C/8082
PCB-1268	ND	0.58	mg/kg	01/02/13	AW	3540C/8082
Total PCBs	0.85	0.58	mg/kg	01/02/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	100		%	01/02/13	AW	30 - 150 %
% TCMX	86		%	01/02/13	AW	30 - 150 %

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Client ID: A14-PW-5

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13862

Page 8 of 31 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/28/12 9:15 Received by: Location Code: **GZA-PCB** LB 12/28/12 15:04 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13859

Phoenix ID: BD13863

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A14-PW-4

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	1.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1221	ND	1.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1232	ND	1.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1242	ND	1.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1248	*	1.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1254	*	1.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1260	ND	1.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1262	ND	1.8	mg/kg	01/03/13	AW	3540C/8082
PCB-1268	ND	1.8	mg/kg	01/03/13	AW	3540C/8082
Total PCBs	18	1.8	mg/kg	01/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	140		%	01/03/13	AW	30 - 150 %
% TCMX	126		%	01/03/13	AW	30 - 150 %

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Client ID: A14-PW-4

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13863

Page 10 of 31 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/28/12 9:00 Received by: Location Code: **GZA-PCB** LB 12/28/12 15:04 Rush Request: Standard see "By" below

Analyzed by:

\_aboratory Data

SDG ID: GBD13859

Phoenix ID: BD13864

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A10-PW-12

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	2.5	mg/kg	01/03/13	AW	3540C/8082
PCB-1221	ND	2.5	mg/kg	01/03/13	AW	3540C/8082
PCB-1232	ND	2.5	mg/kg	01/03/13	AW	3540C/8082
PCB-1242	ND	2.5	mg/kg	01/03/13	AW	3540C/8082
PCB-1248	23	2.5	mg/kg	01/03/13	AW	3540C/8082
PCB-1254	ND	2.5	mg/kg	01/03/13	AW	3540C/8082
PCB-1260	ND	2.5	mg/kg	01/03/13	AW	3540C/8082
PCB-1262	ND	2.5	mg/kg	01/03/13	AW	3540C/8082
PCB-1268	ND	2.5	mg/kg	01/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	136		%	01/03/13	AW	30 - 150 %
% TCMX	119		%	01/03/13	AW	30 - 150 %

Page 11 of 31 Ver 1

Client ID: A10-PW-12

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13864

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/28/12 9:30 Received by: Location Code: **GZA-PCB** LB 12/28/12 15:04 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13859

Phoenix ID: BD13865

Project ID: COMMERCIAL FOUNDRY

Client ID: A5-PW-2

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.82	mg/kg	01/03/13	AW	3540C/8082
PCB-1221	ND	0.82	mg/kg	01/03/13	AW	3540C/8082
PCB-1232	ND	0.82	mg/kg	01/03/13	AW	3540C/8082
PCB-1242	ND	0.82	mg/kg	01/03/13	AW	3540C/8082
PCB-1248	*	0.82	mg/kg	01/03/13	AW	3540C/8082
PCB-1254	ND	0.82	mg/kg	01/03/13	AW	3540C/8082
PCB-1260	ND	0.82	mg/kg	01/03/13	AW	3540C/8082
PCB-1262	ND	0.82	mg/kg	01/03/13	AW	3540C/8082
PCB-1268	ND	0.82	mg/kg	01/03/13	AW	3540C/8082
Total PCBs	9.1	0.82	mg/kg	01/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	99		%	01/03/13	AW	30 - 150 %
% TCMX	92		%	01/03/13	AW	30 - 150 %

Page 13 of 31 Ver 1

Client ID: A5-PW-2

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13865

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/28/12 9:40 Received by: Location Code: **GZA-PCB** LB 12/28/12 15:04 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13859

Phoenix ID: BD13866

Project ID: COMMERCIAL FOUNDRY

Client ID: A5-PW-3

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.59	mg/kg	01/03/13	AW	3540C/8082
PCB-1221	ND	0.59	mg/kg	01/03/13	AW	3540C/8082
PCB-1232	ND	0.59	mg/kg	01/03/13	AW	3540C/8082
PCB-1242	ND	0.59	mg/kg	01/03/13	AW	3540C/8082
PCB-1248	*	0.59	mg/kg	01/03/13	AW	3540C/8082
PCB-1254	ND	0.59	mg/kg	01/03/13	AW	3540C/8082
PCB-1260	ND	0.59	mg/kg	01/03/13	AW	3540C/8082
PCB-1262	ND	0.59	mg/kg	01/03/13	AW	3540C/8082
PCB-1268	ND	0.59	mg/kg	01/03/13	AW	3540C/8082
Total PCBs	6.4	0.59	mg/kg	01/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	99		%	01/03/13	AW	30 - 150 %
% TCMX	81		%	01/03/13	AW	30 - 150 %

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Client ID: A5-PW-3

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13866

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/28/12 9:50 Received by: Location Code: **GZA-PCB** LB 12/28/12 15:04 Rush Request: Standard see "By" below

Analyzed by:

\_aboratory Data

SDG ID: GBD13859

Phoenix ID: BD13867

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A14-PW-2

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.51	mg/kg	01/03/13	AW	3540C/8082
PCB-1221	ND	0.51	mg/kg	01/03/13	AW	3540C/8082
PCB-1232	ND	0.51	mg/kg	01/03/13	AW	3540C/8082
PCB-1242	ND	0.51	mg/kg	01/03/13	AW	3540C/8082
PCB-1248	*	0.51	mg/kg	01/03/13	AW	3540C/8082
PCB-1254	ND	0.51	mg/kg	01/03/13	AW	3540C/8082
PCB-1260	ND	0.51	mg/kg	01/03/13	AW	3540C/8082
PCB-1262	ND	0.51	mg/kg	01/03/13	AW	3540C/8082
PCB-1268	ND	0.51	mg/kg	01/03/13	AW	3540C/8082
Total PCBs	4.1	0.51	mg/kg	01/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	108		%	01/03/13	AW	30 - 150 %
% TCMX	96		%	01/03/13	AW	30 - 150 %

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Client ID: A14-PW-2

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13867

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/28/12 9:55 Received by: Location Code: **GZA-PCB** LB 12/28/12 15:04

Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD13859

Phoenix ID: BD13868

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A5-PW-1

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3	mg/kg	01/04/13	AW	3540C/8082
PCB-1221	ND	3	mg/kg	01/04/13	AW	3540C/8082
PCB-1232	ND	3	mg/kg	01/04/13	AW	3540C/8082
PCB-1242	ND	3	mg/kg	01/04/13	AW	3540C/8082
PCB-1248	*	3	mg/kg	01/04/13	AW	3540C/8082
PCB-1254	*	3	mg/kg	01/04/13	AW	3540C/8082
PCB-1260	ND	3	mg/kg	01/04/13	AW	3540C/8082
PCB-1262	ND	3	mg/kg	01/04/13	AW	3540C/8082
PCB-1268	ND	3	mg/kg	01/04/13	AW	3540C/8082
Total PCBs	9.6	3	mg/kg	01/04/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	126		%	01/04/13	AW	30 - 150 %
% TCMX	116		%	01/04/13	AW	30 - 150 %

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Client ID: A5-PW-1

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13868

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<sup>\*</sup> For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/28/12 10:45 Received by: Location Code: **GZA-PCB** LB 12/28/12 15:04 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13859

Phoenix ID: BD13869

Project ID: COMMERCIAL FOUNDRY

Client ID: A10-PW-11

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	29	mg/kg	01/07/13	AW	3540C/8082
PCB-1221	ND	29	mg/kg	01/07/13	AW	3540C/8082
PCB-1232	ND	29	mg/kg	01/07/13	AW	3540C/8082
PCB-1242	ND	29	mg/kg	01/07/13	AW	3540C/8082
PCB-1248	*	29	mg/kg	01/07/13	AW	3540C/8082
PCB-1254	*	29	mg/kg	01/07/13	AW	3540C/8082
PCB-1260	ND	29	mg/kg	01/07/13	AW	3540C/8082
PCB-1262	ND	29	mg/kg	01/07/13	AW	3540C/8082
PCB-1268	ND	29	mg/kg	01/07/13	AW	3540C/8082
Total PCBs	72	29	mg/kg	01/07/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	01/07/13	AW	30 - 150 %
% TCMX	Diluted Out		%	01/07/13	AW	30 - 150 %

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Client ID: A10-PW-11

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13869

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: **SOLID** Collected by: 12/28/12 11:25 Received by: Location Code: **GZA-PCB** LB 12/28/12 15:04 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13859

Phoenix ID: BD13870

Project ID: COMMERCIAL FOUNDRY

Client ID: A4-PW-1

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	1.6	mg/kg	01/02/13	AW	3540C/8082
PCB-1221	ND	1.6	mg/kg	01/02/13	AW	3540C/8082
PCB-1232	ND	1.6	mg/kg	01/02/13	AW	3540C/8082
PCB-1242	ND	1.6	mg/kg	01/02/13	AW	3540C/8082
PCB-1248	*	1.6	mg/kg	01/02/13	AW	3540C/8082
PCB-1254	*	1.6	mg/kg	01/02/13	AW	3540C/8082
PCB-1260	ND	1.6	mg/kg	01/02/13	AW	3540C/8082
PCB-1262	ND	1.6	mg/kg	01/02/13	AW	3540C/8082
PCB-1268	ND	1.6	mg/kg	01/02/13	AW	3540C/8082
Total PCBs	9.3	1.6	mg/kg	01/02/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	01/02/13	AW	30 - 150 %
% TCMX	Diluted Out		%	01/02/13	AW	30 - 150 %

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Client ID: A4-PW-1

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13870

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/28/12 11:40 Received by: Location Code: **GZA-PCB** LB 12/28/12 15:04 see "By" below

Rush Request: 48 Hour Analyzed by:

\_aboratory Data

SDG ID: GBD13859

Phoenix ID: BD13871

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A4-PW-2

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	14	mg/kg	01/02/13	AW	3540C/8082
PCB-1221	ND	14	mg/kg	01/02/13	AW	3540C/8082
PCB-1232	ND	14	mg/kg	01/02/13	AW	3540C/8082
PCB-1242	ND	14	mg/kg	01/02/13	AW	3540C/8082
PCB-1248	*	14	mg/kg	01/02/13	AW	3540C/8082
PCB-1254	*	14	mg/kg	01/02/13	AW	3540C/8082
PCB-1260	ND	14	mg/kg	01/02/13	AW	3540C/8082
PCB-1262	ND	14	mg/kg	01/02/13	AW	3540C/8082
PCB-1268	ND	14	mg/kg	01/02/13	AW	3540C/8082
Total PCBs	58	14	mg/kg	01/02/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	01/02/13	AW	30 - 150 %
% TCMX	Diluted Out		%	01/02/13	AW	30 - 150 %

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Client ID: A4-PW-2

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13871

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/28/12 11:55 Received by: Location Code: **GZA-PCB** LB 12/28/12 15:04 see "By" below

Rush Request: 48 Hour Analyzed by:

**Laboratory Data** 

SDG ID: GBD13859

Phoenix ID: BD13872

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A4-PW-3

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	12/31/12	SW	E160.3
Extraction for PCB	Completed			12/31/12	BB/E	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3.1	mg/kg	01/02/13	AW	3540C/8082
PCB-1221	ND	3.1	mg/kg	01/02/13	AW	3540C/8082
PCB-1232	ND	3.1	mg/kg	01/02/13	AW	3540C/8082
PCB-1242	ND	3.1	mg/kg	01/02/13	AW	3540C/8082
PCB-1248	*	3.1	mg/kg	01/02/13	AW	3540C/8082
PCB-1254	*	3.1	mg/kg	01/02/13	AW	3540C/8082
PCB-1260	ND	3.1	mg/kg	01/02/13	AW	3540C/8082
PCB-1262	ND	3.1	mg/kg	01/02/13	AW	3540C/8082
PCB-1268	ND	3.1	mg/kg	01/02/13	AW	3540C/8082
Total PCBs	29	3.1	mg/kg	01/02/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	01/02/13	AW	30 - 150 %
% TCMX	Diluted Out		%	01/02/13	AW	30 - 150 %

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Client ID: A4-PW-3

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

%SOLIDS ASSUMED 100%

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD13872

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date SOLID 12/28/12 12:50 Matrix: Collected by: Received by: Location Code: **GZA-PCB** 12/28/12 15:04 LB Rush Request: 24 Hour Analyzed by: see "By" below

P.O.#: 43369.82

Laboratory Data

SDG ID: GBD13859

Phoenix ID: BD13873

Project ID: COMMERCIAL FOUNDRY

Client ID: A3-S4 4-6

RI/ Parameter Result **PQL** Units Date/Time Βv Reference 82 E160.3 Percent Solid % 12/28/12 JL Extraction of CT ETPH Completed 12/31/12 BS/V 3545 Extraction for PCB Completed BB/E SW3540C TPH by GC (Extractable Products) CT ETPH/8015 Ext. Petroleum HC 300 12 mg/Kg 01/02/13 JRB CT ETPH/8015 01/02/13 JRB Identification mg/Kg **QA/QC Surrogates** 01/02/13 % n-Pentacosane 87 % JRB 50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200. This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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<sup>\*\*</sup>Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date SOLID Collected by: 12/28/12 13:15 Matrix: **GZA-PCB** Received by: Location Code: LB 12/28/12 15:04 Rush Request: 24 Hour Analyzed by: see "By" below

P.O.#: 43369.82

**Laboratory Data** 

SDG ID: GBD13859

Phoenix ID: BD13874

Project ID: COMMERCIAL FOUNDRY

Client ID: A3-S14 0-8 INCHES

RL/

Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	86		%	12/28/12	JL	E160.3
Extraction of CT ETPH	Completed			12/31/12	BS/V	3545
Extraction for PCB	Completed				BB/E	SW3540C
TPH by GC (Extractal Ext. Petroleum HC Identification QA/QC Surrogates	ble Products) 490 **	23	mg/Kg mg/Kg	01/02/13 01/02/13	JRB JRB	CT ETPH/8015 CT ETPH/8015
% n-Pentacosane	84		%	01/02/13	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Page 30 of 31 Ver 1

<sup>\*\*</sup>Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C12 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 08, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date SOLID Collected by: 12/28/12 13:30 Matrix: Received by: **GZA-PCB** Location Code: LB 12/28/12 15:04 Rush Request: 24 Hour Analyzed by: see "By" below

aboratory Data

SDG ID: GBD13859

Phoenix ID: BD13875

Project ID: COMMERCIAL FOUNDRY

43369.82

Client ID: A1-S6 0-2 FT

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	82		%	12/28/12	JL	E160.3
Extraction of CT ETPH	Completed			12/31/12	BS/V	3545
Extraction for PCB	Completed				BB/E	SW3540C
TPH by GC (Extractable	Products)					
Ext. Petroleum HC	1100	12	mg/Kg	01/02/13	JRB	CT ETPH/8015
Identification	**		mg/Kg	01/02/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	118		%	01/02/13	JRB	50 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 08, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Page 31 of 31 Ver 1

<sup>\*\*</sup>Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

January 08, 2013

## QA/QC Data

SDG I.D.: GBD13859

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits
QA/QC Batch 217438, QC Sa	mple No: BD13685 (BD1	3859. BD13860. BD1	3861. B	BD13862	2)				
Polychlorinated Biphen	·	. 000 / 22 . 0000 / 22 .	000.,2		-,				
PCB-1016	ND	94	85	10.1				40 - 140	30
PCB-1221	ND	, ,	00					40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	98	91	7.4				40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	83	90	86	4.5				30 - 150	30
% TCMX (Surrogate Rec)	81	92	86	6.7				30 - 150	30
Comment:									
A LCS and LCS Duplicate were	performed instead of a matri	x spike and matrix spike	duplicate	<b>)</b> .					
QA/QC Batch 217439, QC Sa BD13870, BD13871, BD1387	2, BD13873, BD13874, E		3865, B	BD13866	5, BD1	3867, B	D13868	, BD1386	9,
Polychlorinated Biphen	<u>ıyls - Solid</u>								
PCB-1016	ND	70	76	8.2	73			40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	76	79	3.9	83			40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	95	92	97	5.3	96			30 - 150	30
% TCMX (Surrogate Rec)	71	79	75	5.2	80			30 - 150	30
QA/QC Batch 217478, QC Sa	mple No: BD14135 (BD1	13873, BD13874, BD1	3875)						
TPH by GC (Extractable	e Products) - Solid								
Ext. Petroleum HC	ND	66	87	27.5	77	93	18.8	50 - 150	30
% n-Pentacosane	76	65	87	28.9	68	79	15.0	50 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

**RPD** - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

January 08, 2013

QA/QC Data

SDG I.D.: GBD13859

Tuesday, January 08, 2013 Requested Criteria: None

# **Sample Criteria Exceedences Report**

**GBD13859 - GZA-PCB** 

State: CT

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RLCriteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

## Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY **Project Number:** Laboratory Sample ID(s): BD13859, BD13860, BD13861, BD13862, BD13863, BD13864, BD13865, BD13866, BD13867, BD13868, BD13869, BD13870, BD13871, BD13872, BD13873, BD13874, BD13875 **Sampling Date(s):** 12/28/2012 **RCP Methods Used:** 1311/1312 6010 7000 7196 ☐ EPH TO15 7470/7471 ✔ 8082 8270 **✓** ETPH 9010/9012 ☐ VPH 8260 8151 For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? 1a. ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) 2. Were all samples received by the laboratory in a condition consistent with that ✓ Yes No described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No  $\square$  NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ☐ Yes **☑** No Were these reporting limits met? 5b. ☐ Yes ☐ No **✓** NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No  $\square$  NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? ✓ Yes □ No  $\square$  NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Tuesday, January 08, 2013 Authorized Printed Name: Greg Lawrence Signature:

Position: Assistant Lab Director







# **RCP Certification Report**

January 08, 2013

SDG I.D.: GBD13859

### **ETPH Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

### **Instrument:** Au-fid1 01/02/13-1 (BD13873)

Initial Calibration (FID1 - ETPH\_1) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

The daily continuing calibration standard was within method criteria of +/- 30 % D.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: None

**Printed Name** Jeff Bucko **Position:** Chemist **Date:** 1/2/2013

### **Instrument:** <u>Au-xl1 01/02/13-1 (BD13875)</u>

Initial Calibration (FIDXL1 ETPH\_1) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

The daily continuing calibration standard was within method criteria of  $\pm -30$  %D.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: None

Printed Name Jeff Bucko
Position: Chemist
Date: 1/2/2013

### **Instrument:** Au-xl2 01/02/13-1 (BD13874)

Initial Calibration (FID1 - ETPH\_1) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

The daily continuing calibration standard was within method criteria of +/- 30 %D.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: none

**Printed Name** Jeff Bucko **Position:** Chemist **Date:** 1/2/2013

QC Comments: QC Batch 17478 12/31/12 (BD13873, BD13874, BD13875)







# **RCP Certification Report**

**January 08, 2013** 

**SDG I.D.: GBD13859** 

### QC (Batch Specific)

----- Sample No: BD14135, QA/QC Batch: 217478 -----

All LCS recoveries were within 50 - 150 with the following exceptions: None.

All LCSD recoveries were within 50 - 150 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 01/07/13-1 (BD13869)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/7/2013

**Instrument:** Au-ecd3 01/02/13-1 (BD13862, BD13871)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/2/2013

**Instrument:** Au-ecd35 01/02/13-1 (BD13859, BD13870, BD13871, BD13872)

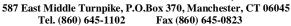
8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/2/2013







# **RCP Certification Report**

January 08, 2013

**SDG I.D.: GBD13859** 

**Instrument:** Au-ecd35 01/03/13-1 (BD13860, BD13861, BD13863, BD13864, BD13865,

BD13866, BD13867, BD13868)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 1/3/2013

**QC** Batch 17438 12/28/12 (BD13859, BD13860, BD13861, BD13862)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

**QC** Comments: QC Batch 17439 12/28/12 (BD13863, BD13864, BD13865, BD13866, BD13867,

BD13868, BD13869, BD13870, BD13871, BD13872)

#### QC (Site Specific)

----- Sample No: BD13873, QA/QC Batch: 217439 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria. **QC (Batch Specific)** 

#### QO (Batch Opecino)

----- Sample No: BD13685, QA/QC Batch: 217438 -----

All LCS recoveries were within 40 -  $140\ with the following exceptions: None.$ 

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

### **Temperature Narration**

The samples were received at 1C with cooling initiated. (Note acceptance criteria is above freezing up to 6°C)



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

January 08, 2013

SDG I.D.: GBD13859

Cooler: Yes N6 CC IPK ICE NO	°C Pg of	JRMBS HOTTEN DERACON	23.00 < 3	75367.06				Hadoj!		TOR BURGES TO SALES T										-			Data Format	Excel	☐ GIS/Key	□ EQuIS	Data Package Tier II Checklist	Full Data Package Thorn Std Report Other	* SURCHARGE APPLIES
Cooler. Coolant: IPK	Ten	Data Delivery:    Fax #.		  -  -	Phone #:	Fax #:			\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1 8 10 10 10 10 10 10 10 10 10 10 10 10 10	1													MCP Certification	Щ			S-3   MWRA eSMART   Other	lected: CT
				Loomer's	40TTON	40TTS-																		☐ Direct Exposure   X RCP Cert (Residential) ☐ GW Protection	GW SW Protection	Other GA Mobility	GB Mobility Residential DEC	☐ I/C DEC ☐ Other	State where samples were collected:
	<b>CHAIN OF CUSTODY RECORD</b>	587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Drojout:		Report to:	Invoice to: 5, ~ Hoths.		Analysis Request	Sec. Sec.	Pod	×	×	, , , , , , , , , , , , , , , , , , ,	X	×	×		×	×	*	<b>*</b>	<b>X</b>	Time:	398/12 S 400			Umaround:	∠ Days* □ 3 Days* <b>X</b> Standard	Other IRCHARGE APPLIES
	CHI	Ū			טיר	01.033	dentification	Date: 12/25/12	ce Water ww = Waste Water	Sample Date Time Matrix Sampled Sampled	518 7/18/2	730	845		915	00 1/22/11 00	3 145/12 930 K	0 1426/1 540	0 11/25/12 950	0 12/12/12 955	1045	0 12/18/12 1125	Ω				[ SA, NT/ BAYOML	· · · · · · · · · · · · · · · · · · ·	
		PHOENIX Environmental Laboratories, Inc.	674	د پیرا د از	50.782	Genstanbury of	Client Sample - Information - Identification	A.	Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	Customer Sample Sldentification		A14-Pw.3	A14 - PW-6	PW-5		A10-M-12	A5-2-2	A5-PW-3	A14-PW-2	A5-PW-1	A10-PW-11	A4-PW-1	Accepted by:	hay Me	•		Comments, Special Requirements or Regulations: o - みんん ブノルルンなだ , ゆんいブ / stuck		
		PHC	Customer	Custoffiel.	Address:			Sampler's Signature	Matrix Code:  DW=Drinking Wat SE=Sediment S	PHOENIX USE ONLY SAMPLE #	13869	13800	1380	13860	13803	1380	13805	380C)	G	13868	13809	07851	Relinquished by:	Shaum 1			Comments, Special Requireme O - アハンブ/にいびだだ		

\* SURCHARGE APPLIES Phoenix Std Report N Email: James. Horton Egzg. Com Full Data Package\* 0 Tier II Checklist Coolant: IPK | ICE 7 Project P.O: 43369.82 ♂ Data Package Excel

PDF

GIS/Key Data Format □ EQuIS Other  $^{\circ}$ C Pg MA MCP Certification MWRA eSMART
 Other
 Other
 Other
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 Other
 MWRA eSMART
 Temp Phone #: 5 Fax #: ☐ GW-1 ☐ GW-2 □ GW-3 Data Delivery: S-1 S 5 State where samples were collected: ☐ Residential DEC GW Protection SW Protection GB Mobility GA Mobility C Direct Exposure ☐ I/C DEC Other commercial Founday 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 (Residential) **CHAIN OF CUSTODY RECORD** Jim Hossen Other M9 □ \* SURCHARGE APPLIES The state of Invoice to: Report to: 3 Days\*
Standard
Other Project: Analysis Request 192813 Turnaround: 1880 × × Sampled 1330 いろ 1250 Time 11/2/12 11 40 1155 Date: 11/28/17 Matrix Code:

DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water OHOLD REMAINING SAMPLE FOR POTENTIAL PCB 21/32/21 Date Sampled 12/22/12 W=Wipe O=Other 12/22/15 Slastenbuy CT 06033 Client Sample - Information - Identification \$55 Winding Breck Dr Sample Matrix O 0 S S Environmental Laboratories, Inc. Comments, Special Requirements or Regulations: Accepted by: ("8-0) HS-EH A1-56 (0-21) SE=Sediment SL=Sludge S=Soil/Solid Customer Sample A3-54 (4-6) Identification A4-PW-2 44-PW-3 Sampler's Sheum Dray GZA PHOENIX USE ONLY Relinguished by ANALYSIS Customer: Address: 5873 SAMPLE #

Yes 🗹



Wednesday, January 16, 2013

Attn: Mr. James Hutton GZA GeoEnvironmental, Inc. 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY 43369.82

Sample ID#s: BD18412

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

January 16, 2013

FOR: Attn: Mr. James Hutton

> GZA GeoEnvironmental, Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOIL Collected by: 01/10/13 15:00 **GZA-PCB** Received by: Location Code: LB 01/11/13 14:42 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

SDG ID: GBD18412 **Laboratory Data** 

Phoenix ID: BD18412

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: EXT-101 4.5-4.75 FT

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 81 % 01/11/13 E160.3 JL Extraction for PCB Completed 01/11/13 BB/E SW3540C PCB (Soxhlet) PCB-1016 ND 0.4 mg/kg 01/14/13 ΑW 3540C/8082 PCB-1221 ND 0.4 mg/kg 01/14/13 AW 3540C/8082 3540C/8082 ND 01/14/13 ΑW PCB-1232 0.4 mg/kg PCB-1242 ND 01/14/13 ΑW 3540C/8082 0.4 mg/kg ND 01/14/13 AW 3540C/8082 PCB-1248 0.4 mg/kg 3540C/8082 PCB-1254 ND 0.4 mg/kg 01/14/13 AW 3540C/8082 PCB-1260 ND 0.4 01/14/13 ΑW mg/kg PCB-1262 ND 0.4 mg/kg 01/14/13 ΑW 3540C/8082 ND 01/14/13 ΑW 3540C/8082 PCB-1268 0.4 mg/kg **QA/QC Surrogates** % DCBP 89 % 01/14/13 AW 30 - 150 % % TCMX 85 % 01/14/13 30 - 150 %

> Page 1 of 2 Ver 1

Project ID: COMMERCIAL FOUNDRY 43369.82

Client ID: EXT-101 4.5-4.75 FT

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD18412

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

January 16, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Page 2 of 2 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

January 16, 2013

## QA/QC Data

SDG I.D.: GBD18412

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 218256, QC									
Polychlorinated Biphe	enyls - Soil								
PCB-1016	ND	88	87	1.1	95	94	1.1	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	92	94	2.2	96	95	1.0	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	90	86	89	3.4	88	88	0.0	30 - 150	30
% TCMX (Surrogate Rec)	83	82	81	1.2	94	93	1.1	30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

January 16, 2013

Wednesday, January 16, 2013

Acode

# Sample Criteria Exceedences Report GBD18412 - GZA-PCB

Requested Criteria: GAM, RC
State: CT

Criteria

Phoenix Analyte

Result RL Criteria Criteria Units

\*\*\* No Data to Display \*\*\*

SampNo

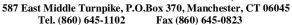
Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Labo	pratory Name: Phoenix Environmental Labs, Inc. Client: GZ	A-PCB								
Proje	ect Location: COMMERCIAL FOUNDRY 4336 Project Number:									
Labo	pratory Sample ID(s): BD18412									
Sam	pling Date(s): 1/10/2013									
RCP	Methods Used:									
13	311/1312	☐ EPH ☐ TO15								
<b>✓</b> 80	082	☐ VPH								
1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method specific Reasonable Confidence Protocol documents?	d- ✓ Yes □ No								
1a.	Were the method specified preservation and holding time requirements met?	✓ Yes □ No								
1b.	EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)  ☐ Yes ☐ No ☑ NA									
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	✓ Yes □ No								
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	✓ Yes □ No □ NA								
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protoco documents achieved?	V Yes □ No								
5a.	Were reporting limits specified or referenced on the chain-of-custody?	✓ Yes □ No								
5b.	Were these reporting limits met?	✓ Yes □ No □ NA								
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	✓ Yes □ No □ NA								
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☑ No ☐ NA								
Note:	Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".									
and	I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.									
	Date: Wed	nesday, January 16, 2013								
	horized Manual of Printed Name: Mary									
2.9	Position: Proje	•								







# **RCP Certification Report**

**January 16, 2013** 

SDG I.D.: GBD18412

### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** <u>Au-ecd8 01/14/13-1 (BD18412)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 1/14/2013

**QC Comments:** QC Batch 18256 01/10/13 (BD18412)

### QC (Batch Specific)

----- Sample No: BD18200, QA/QC Batch: 218256 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

### **Temperature Narration**

The samples were received at 6C with cooling initiated. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

Cooler: Yest No □ Coolanji IPK Z CE □ N □	) of 600	n 64, 24, Com	~9\$ \$ 3,7 °	To all table to the series of	Tod eligible Control		Data Format  Excel ClS/Key ClS/Key ClS/Key Data Package Ther II Checklist Ther II Checklist Ther II Checklist Ther II Checklist Other Checklist Checklist Ther II Checklist Ther II Checklist Checkl
Coolan	Temp	Data Delivery:  Fax#    Fax#	Project P.O: Phone #: <b>%Lo</b> Fax #:		1 s s lo los los los los los los los los		MA   MA
	•		4 4356 9.85		\$05.103		Direct Exposure   CT   MA     (Residential)   GW Protection   GW     GW Protection   GW     Other   GB Mobility
	<b>CHAIN OF CUSTODY RECORD</b>	587 East Middle Turnpike, Manchester, CT 06040 nail: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Cenatical Finding	**************************************			203
	HAIN OF CU	587 East Middle Tumpike, M Email: info@phoenixlabs.com Client Services (8	Project: Report to: Invoice to:	Analysis Request	S. S		1/0/13   1/02C      1/0/13   1/02C      1/0/13   1/02C      1/0/13   1/02C      1 Day*     2 Days*     3 Days*
	D C	Inc.	55 Windrig Brook Drive Plustenburg CT 04033	Sampler's Signature  Matrix Code:  Date: 1/10/13  Matrix Code:  Date: 1/10/13  Matrix Code:  Date: 1/10/13  Matrix Code:  Date: 1/10/13	Customer Sample Sample Date Time		Accepted by:  Control  Control
		PHOENIX Environmental Laboratories,	Customer: C-2-A-Address: 655	Signature Signature  Matrix Code: DW=Drinking Water GW=Gr SE=Sediment SL=Sludge	PHOENIX USE ONLY SAMPI F#		Selinguished by:  And Cade Comments, Special Requirements or Regulation  Detection Cimils Less Hum



Thursday, February 07, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY DUPS

Sample ID#s: BD25079 - BD25087

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

February 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOLID Collected by: 12/24/12 9:45 **GZA-PCB** Received by: Location Code: SW 01/30/13 11:00 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

SDG ID: GBD25079 **Laboratory Data** 

Phoenix ID: BD25079

Project ID: COMMERCIAL FOUNDRY DUPS

Client ID: A-14-S-4 (D)

RL/ **PQL** Units Parameter Result Date/Time By Reference Percent Solid 83 % 01/30/13 E160.3 JL Extraction for PCB Completed 01/30/13 BB/A SW3540C PCB (Soxhlet) PCB-1016 ND 40 mg/kg 02/01/13 ΑW 3540C/8082 PCB-1221 ND 40 mg/kg 02/01/13 AW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1232 40 mg/kg ND 02/01/13 ΑW 3540C/8082 PCB-1242 40 mg/kg 490 40 02/01/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 40 mg/kg 02/01/13 AW 02/01/13 3540C/8082 PCB-1260 ND 40 ΑW mg/kg PCB-1262 ND 40 mg/kg 02/01/13 ΑW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1268 40 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 02/01/13 AW 30 - 150 % Diluted Out % 02/01/13 30 - 150 % % TCMX

> Page 1 of 18 Ver 1

Client ID: A-14-S-4 (D)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

February 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Phoenix I.D.: BD25079

Page 2 of 18 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

February 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: 12/24/12 12:20 **GZA-PCB** Received by: Location Code: SW 01/30/13 11:00 Standard Analyzed by: see "By" below

Rush Request:

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079

Phoenix ID: BD25080

Project ID: COMMERCIAL FOUNDRY DUPS

Client ID: A-14-S-3 (D)

RL/ **PQL** Units Parameter Result Date/Time By Reference Percent Solid 82 % 01/30/13 E160.3 JL Extraction for PCB Completed 01/30/13 BB/A SW3540C PCB (Soxhlet) PCB-1016 ND 200 mg/kg 02/01/13 ΑW 3540C/8082 PCB-1221 ND 200 mg/kg 02/01/13 AW 3540C/8082 ND 200 02/01/13 ΑW 3540C/8082 PCB-1232 mg/kg ND 200 02/01/13 ΑW 3540C/8082 PCB-1242 mg/kg 570 200 02/01/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 200 mg/kg 02/01/13 AW 02/01/13 3540C/8082 PCB-1260 ND 200 ΑW mg/kg PCB-1262 ND 200 mg/kg 02/01/13 ΑW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1268 200 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 02/01/13 AW 30 - 150 % Diluted Out % 02/01/13 30 - 150 % % TCMX

> Page 3 of 18 Ver 1

Client ID: A-14-S-3 (D)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

February 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Phoenix I.D.: BD25080

Page 4 of 18 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

February 07, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/24/12 9:25 Received by: Location Code: **GZA-PCB** SW 01/30/13 11:00 Rush Request: Standard Analyzed by: see "By" below

rtusii rtoquest.

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079

Phoenix ID: BD25081

Project ID: COMMERCIAL FOUNDRY DUPS

Client ID: Orangeburg Pipes (D)

RI /

		KL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	44		%	01/30/13	JL	E160.3
Extraction for PCB	Completed			01/30/13	BB/A	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1221	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1232	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1242	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1248	1300	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1254	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1260	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1262	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1268	ND	470	mg/kg	02/04/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	02/04/13	AW	30 - 150 %
% TCMX	Diluted Out		%	02/04/13	AW	30 - 150 %

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Client ID: Orangeburg Pipes (D)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

February 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Phoenix I.D.: BD25081

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

February 07, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: 12/26/12 12:25 **GZA-PCB** Received by: Location Code: SW 01/30/13 11:00 Rush Request: Standard Analyzed by: see "By" below

Rusii Request.

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079

Phoenix ID: BD25082

Project ID: COMMERCIAL FOUNDRY DUPS

Client ID: A-14-F-5(0-0.5)D

RL/ **PQL** Units Parameter Result Date/Time Βv Reference Percent Solid 97 % 01/30/13 E160.3 JL Extraction for PCB Completed 01/30/13 BB/A SW3540C PCB (Soxhlet) PCB-1016 ND 3.4 mg/kg 02/01/13 ΑW 3540C/8082 PCB-1221 ND 3.4 mg/kg 02/01/13 AW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1232 3.4 mg/kg ND 02/01/13 ΑW 3540C/8082 PCB-1242 3.4 mg/kg 22 02/01/13 AW 3540C/8082 PCB-1248 3.4 mg/kg 3540C/8082 PCB-1254 ND 3.4 mg/kg 02/01/13 AW 02/01/13 3540C/8082 PCB-1260 ND 3.4 ΑW mg/kg PCB-1262 ND 3.4 mg/kg 02/01/13 ΑW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1268 3.4 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 02/01/13 AW 30 - 150 % Diluted Out % 02/01/13 30 - 150 % % TCMX

Page 7 of 18 Ver 1

Client ID: A-14-F-5(0-0.5)D

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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Phyllis Shiller, Laboratory Director

February 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Phoenix I.D.: BD25082

Page 8 of 18 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

February 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: 12/26/12 14:25 **GZA-PCB** Received by: Location Code: SW 01/30/13 11:00 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079

Phoenix ID: BD25083

Project ID: COMMERCIAL FOUNDRY DUPS

Client ID: A-4-F-1(D)

RL/ **PQL** Units Parameter Result Date/Time Βv Reference Percent Solid 98 % 01/30/13 E160.3 JL Completed Extraction for PCB 01/30/13 BB/A SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 02/01/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 02/01/13 AW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 02/01/13 ΑW 3540C/8082 PCB-1242 0.33 mg/kg 02/01/13 AW 3540C/8082 PCB-1248 0.33 mg/kg 3540C/8082 PCB-1254 0.33 mg/kg 02/01/13 AW 3540C/8082 PCB-1260 ND 0.33 02/01/13 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 02/01/13 ΑW 3540C/8082 PCB-1268 ND 02/01/13 ΑW 3540C/8082 0.33 mg/kg 3540C/8082 0.33 02/01/13 AW Total PCBs 4 mg/kg **QA/QC Surrogates** % DCBP 85 % 02/01/13 AW 30 - 150 % 99 02/01/13 ΑW 30 - 150 % % TCMX %

> Page 9 of 18 Ver 1

Client ID: A-4-F-1(D)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD25083

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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Phyllis Shiller, Laboratory Director

February 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

February 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/26/12 16:10 Received by: Location Code: **GZA-PCB** SW 01/30/13 11:00 Analyzed by: see "By" below

\_. ,

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079

Phoenix ID: BD25084

COMMERCIAL FOUNDRY DUPS Project ID:

Client ID: A-10-F-15(0-0.5)D

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	99		%	01/30/13	JL	E160.3
Extraction for PCB	Completed			01/30/13	BB/A	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	1.6	mg/kg	02/01/13	AW	3540C/8082
PCB-1221	ND	1.6	mg/kg	02/01/13	AW	3540C/8082
PCB-1232	ND	1.6	mg/kg	02/01/13	AW	3540C/8082
PCB-1242	ND	1.6	mg/kg	02/01/13	AW	3540C/8082
PCB-1248	4	1.6	mg/kg	02/01/13	AW	3540C/8082
PCB-1254	ND	1.6	mg/kg	02/01/13	AW	3540C/8082
PCB-1260	ND	1.6	mg/kg	02/01/13	AW	3540C/8082
PCB-1262	ND	1.6	mg/kg	02/01/13	AW	3540C/8082
PCB-1268	ND	1.6	mg/kg	02/01/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	02/01/13	AW	30 - 150 %
% TCMX	Diluted Out		%	02/01/13	AW	30 - 150 %

Page 11 of 18 Ver 1

Client ID: A-10-F-15(0-0.5)D

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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February 07, 2013

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Phoenix I.D.: BD25084

Page 12 of 18 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

February 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: 12/27/12 11:00 **GZA-PCB** Received by: Location Code: SW 01/30/13 11:00 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079

Phoenix ID: BD25085

Project ID: COMMERCIAL FOUNDRY DUPS

Client ID: A-5-F-5(0-0.5)D

RL/ **PQL** Units Parameter Result Date/Time Βv Reference Percent Solid 99 % 01/30/13 E160.3 JL Extraction for PCB Completed 01/30/13 BB/A SW3540C PCB (Soxhlet) PCB-1016 ND 1.6 mg/kg 02/01/13 ΑW 3540C/8082 PCB-1221 ND 1.6 mg/kg 02/01/13 AW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1232 1.6 mg/kg ND 02/01/13 ΑW 3540C/8082 PCB-1242 1.6 mg/kg 4.9 02/01/13 AW 3540C/8082 PCB-1248 1.6 mg/kg 3540C/8082 PCB-1254 ND 1.6 mg/kg 02/01/13 AW 02/01/13 3540C/8082 PCB-1260 ND 1.6 AW mg/kg PCB-1262 ND 1.6 mg/kg 02/01/13 AW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1268 1.6 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 02/01/13 AW 30 - 150 % Diluted Out % 02/01/13 30 - 150 % % TCMX

> Page 13 of 18 Ver 1

Client ID: A-5-F-5(0-0.5)D

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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February 07, 2013

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Phoenix I.D.: BD25085

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**Analysis Report** 

February 07, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/27/12 12:45 Received by: Location Code: **GZA-PCB** SW 01/30/13 11:00 Analyzed by: Standard see "By" below

Rush Request:

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079 Phoenix ID: BD25086

COMMERCIAL FOUNDRY DUPS Project ID:

Client ID: A10-PW-4(D)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	01/31/13	LB	E160.3
Extraction for PCB	Completed			01/30/13	BB/A	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1221	ND	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1232	ND	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1242	ND	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1248	*	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1254	*	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1260	ND	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1262	ND	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1268	ND	8	mg/kg	02/04/13	AW	3540C/8082
Total PCBs	53	8	mg/kg	02/04/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	02/04/13	AW	30 - 150 %
% TCMX	Diluted Out		%	02/04/13	AW	30 - 150 %

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Client ID: A10-PW-4(D)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD25086

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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February 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Page 16 of 18 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

February 07, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: 12/27/12 8:10 **GZA-PCB** Received by: Location Code: SW 01/30/13 11:00 Rush Request: Standard Analyzed by: see "By" below

Rusii Request.

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079

Phoenix ID: BD25087

Project ID: COMMERCIAL FOUNDRY DUPS

Client ID: A10-PW-7(D)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 100 % 01/31/13 LB E160.3 1 Extraction for PCB Completed 01/30/13 BB/A SW3540C PCB (Soxhlet) PCB-1016 ND 0.82 mg/kg 02/01/13 ΑW 3540C/8082 PCB-1221 ND 0.82 mg/kg 02/01/13 AW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1232 0.82 mg/kg ND 0.82 02/01/13 ΑW 3540C/8082 PCB-1242 mg/kg 0.82 02/01/13 AW 3540C/8082 PCB-1248 1.3 mg/kg 3540C/8082 PCB-1254 ND 0.82 mg/kg 02/01/13 AW 02/01/13 3540C/8082 PCB-1260 ND 0.82 AW mg/kg PCB-1262 ND 0.82 mg/kg 02/01/13 AW 3540C/8082 ND 0.82 02/01/13 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP 82 % 02/01/13 AW 30 - 150 % 86 % 02/01/13 30 - 150 % % TCMX

Page 17 of 18 Ver 1

Client ID: A10-PW-7(D)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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Phyllis Shiller, Laboratory Director

February 07, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Phoenix I.D.: BD25087

Page 18 of 18 Ver 1



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# QA/QC Report

February 07, 2013

# QA/QC Data

SDG I.D.: GBD25079

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits
QA/QC Batch 219963, C BD25086, BD25087)	2C Sample No: BD25080 (BD25079, B	D25080, BD2	5081, E	3D25082	, BD25	5083, BI	D25084	, BD2508	5,
Polychlorinated Big	<u>ohenyls - Solid</u>								
PCB-1016	ND	79	76	3.9				40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	69	67	2.9				40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	74	76	71	6.8				30 - 150	30
% TCMX (Surrogate Rec)	78	82	77	6.3				30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

**RPD** - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis Shiller, Laboratory Director

February 07, 2013

Thursday, February 07, 2013 Requested Criteria: None

# **Sample Criteria Exceedences Report**

**GBD25079 - GZA-PCB** 

State: CT

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

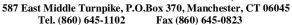
Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY DUP **Project Number:** Laboratory Sample ID(s): BD25079, BD25080, BD25081, BD25082, BD25083, BD25084, BD25085, BD25086, BD25087 **Sampling Date(s):** 12/24/2012, 12/26/2012, 12/27/2012 **RCP Methods Used:** 1311/1312 6010 7000 ☐ EPH ☐ TO15 7196 7470/7471 8081 ✔ 8082 8151 8260 8270 ETPH 9010/9012 ☐ VPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) Were all samples received by the laboratory in a condition consistent with that 2. ✓ Yes □ No described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No ☐ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ☐ Yes ✓ No Were these reporting limits met? 5b. ☐ Yes ☐ No **✓** NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No  $\square$  NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ☐ Yes ✓ No NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Thursday, February 07, 2013 Authorized Printed Name: Maryam Taylor Signature: Position: Project Manager







# **RCP Certification Report**

February 07, 2013

**SDG I.D.: GBD25079** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 02/01/13-1 (BD25079, BD25080, BD25082, BD25083, BD25084,

BD25085, BD25087)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 2/1/2013

**Instrument:** Au-ecd24 02/04/13-1 (BD25081, BD25086)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 2/4/2013

#### QC (Site Specific)

----- Sample No: BD25080, QA/QC Batch: 219963 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.

Coolant: IPK | ICE | N

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	Signature				Date:		Request				1.10			14
	Matrix Code:         DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	ter <b>GW</b> =Ground \	Water <b>SW</b> ≕Surf -Soil/Solid	ace Water W=Wipe	WW=\//ast O=Other	e Water	1.00					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	26 (182) 35 26 (182)	140
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									Other	GA Mobility	GW-3		EQuIS Other	
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#### Loreen - Phoenixlabs

From:

Anthony J. Trani [Anthony.Trani@gza.com]

Sent: To: Wednesday, January 30, 2013 9:59 AM

io: Subject: Loreen - Phoenixlabs RE: December samples

Okay, lets have the dups for PCBs run on the following samples:

Soil Samples: 51 Samples; need 3 QA/QC

BD12628 - A-14-S-4 = 420 mg/kg

 $\sim$  BD12637 - A-14-S-3 = 710 mg/kg

BD12638 - Orangeburg Pipe = 6,100 mg/kg

Concrete Floor Samples: 76 Samples; need 4 QA/QC

BD13694 - A-14-F-5 (0-0.5) = 20 mg/kg

BD12969 - A-4-F-1 = 3.9 mg/kg

BD12997 - A-10-F-15 (0-0.5) = 4.4 mg/kg

BD12980 - A-5-F-5 (0-0.5) = 9.6 mg/kg

Ceiling Samples: 15 Samples; need 1 QA/QC

No samples available

Paint/Wall Samples: 24 Samples; need 2 QA/QC

BD13683 - A10-PW-4 = 52 mg/kg BD13686 - A10-PW-7 = 1.2 mg/kg

Thanks Anthony

**From:** Loreen - Phoenixlabs [mailto:loreen@phoenixlabs.com]

Sent: Wednesday, January 30, 2013 9:36 AM

To: Anthony J. Trani

Subject: RE: December samples

I have 13683, 13870, 13686...will any of these work? Loreen

**From:** Anthony J. Trani [mailto:Anthony.Trani@gza.com]

Sent: Wednesday, January 30, 2013 9:26 AM

To: Loreen - Phoenixlabs

Subject: RE: December samples

Loreen,

The PW samples are paint chip samples. Do you have any samples with a PW in them that we can resample?

**From:** Loreen - Phoenixlabs [mailto:loreen@phoenixlabs.com]

Sent: Wednesday, January 30, 2013 8:54 AM

**To:** Anthony J. Trani **Cc:** 'Bobbi - Phoenixlabs'

Subject: RE: December samples



Friday, August 23, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY DUPS

Sample ID#s: BD25079 - BD25087

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

August 23, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOLID Collected by: 12/24/12 9:45 Location Code: **GZA-PCB** Received by: SW 01/30/13 11:00 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079 Phoenix ID: BD25079

Project ID: COMMERCIAL FOUNDRY DUPS

Client ID: A-14-S-4 (D)

RL/ **PQL** Units Parameter Result Date/Time Βv Reference Percent Solid 83 % 01/30/13 E160.3 JL Extraction for PCB Completed 01/30/13 BB/A SW3540C PCB (Soxhlet) PCB-1016 ND 40 mg/kg 02/01/13 ΑW 3540C/8082 PCB-1221 ND 40 mg/kg 02/01/13 AW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1232 40 mg/kg ND 02/01/13 ΑW 3540C/8082 PCB-1242 40 mg/kg 490 40 02/01/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 40 mg/kg 02/01/13 AW 02/01/13 3540C/8082 PCB-1260 ND 40 ΑW mg/kg PCB-1262 ND 40 mg/kg 02/01/13 ΑW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1268 40 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 02/01/13 AW 30 - 150 % % TCMX Diluted Out % 02/01/13 30 - 150 %

> Page 1 of 18 Ver 2

Client ID: A-14-S-4 (D)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

August 23, 2013

Reviewed and Released by: Loreen Fay, Project Manager

Phoenix I.D.: BD25079

Page 2 of 18 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

August 23, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOLID Collected by: 12/24/12 12:20 **GZA-PCB** Received by: Location Code: SW 01/30/13 11:00 Standard Analyzed by: see "By" below

Rush Request:

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079

Phoenix ID: BD25080

Project ID: COMMERCIAL FOUNDRY DUPS

Client ID: A-14-S-13 (D)

RL/ **PQL** Units Parameter Result Date/Time Βv Reference Percent Solid 82 % 01/30/13 E160.3 JL Extraction for PCB Completed 01/30/13 BB/A SW3540C PCB (Soxhlet) PCB-1016 ND 200 mg/kg 02/01/13 ΑW 3540C/8082 PCB-1221 ND 200 mg/kg 02/01/13 AW 3540C/8082 ND 200 02/01/13 ΑW 3540C/8082 PCB-1232 mg/kg ND 200 02/01/13 ΑW 3540C/8082 PCB-1242 mg/kg 570 200 02/01/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 200 mg/kg 02/01/13 AW 200 02/01/13 3540C/8082 PCB-1260 ND ΑW mg/kg PCB-1262 ND 200 mg/kg 02/01/13 ΑW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1268 200 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 02/01/13 AW 30 - 150 % % TCMX Diluted Out % 02/01/13 30 - 150 %

> Page 3 of 18 Ver 2

Client ID: A-14-S-13 (D)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

August 23, 2013

Reviewed and Released by: Loreen Fay, Project Manager

Phoenix I.D.: BD25080

Page 4 of 18 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

August 23, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/24/12 9:25 Received by: Location Code: **GZA-PCB** SW 01/30/13 11:00 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079

Phoenix ID: BD25081

Project ID: COMMERCIAL FOUNDRY DUPS

Client ID: Orangeburg Pipes (D)

RL/

		KL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	44		%	01/30/13	JL	E160.3
Extraction for PCB	Completed			01/30/13	BB/A	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1221	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1232	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1242	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1248	1300	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1254	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1260	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1262	ND	470	mg/kg	02/04/13	AW	3540C/8082
PCB-1268	ND	470	mg/kg	02/04/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	02/04/13	AW	30 - 150 %
% TCMX	Diluted Out		%	02/04/13	AW	30 - 150 %

Page 5 of 18 Ver 2

Client ID: Orangeburg Pipes (D)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

August 23, 2013

Reviewed and Released by: Loreen Fay, Project Manager

Phoenix I.D.: BD25081

Page 6 of 18 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

August 23, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/26/12 12:25 Received by: Location Code: **GZA-PCB** SW 01/30/13 11:00 Rush Request: Standard Analyzed by: see "By" below

P.O.#:

**Laboratory Data** SDG ID: GBD25079 Phoenix ID: BD25082

COMMERCIAL FOUNDRY DUPS Project ID:

Client ID: A-14-F-5(0-0.5)D

D .	<b>D</b> 1	RL/	11. %	D / /T'	-	D (
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	97		%	01/30/13	JL	E160.3
Extraction for PCB	Completed			01/30/13	BB/A	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3.4	mg/kg	02/01/13	AW	3540C/8082
PCB-1221	ND	3.4	mg/kg	02/01/13	AW	3540C/8082
PCB-1232	ND	3.4	mg/kg	02/01/13	AW	3540C/8082
PCB-1242	ND	3.4	mg/kg	02/01/13	AW	3540C/8082
PCB-1248	22	3.4	mg/kg	02/01/13	AW	3540C/8082
PCB-1254	ND	3.4	mg/kg	02/01/13	AW	3540C/8082
PCB-1260	ND	3.4	mg/kg	02/01/13	AW	3540C/8082
PCB-1262	ND	3.4	mg/kg	02/01/13	AW	3540C/8082
PCB-1268	ND	3.4	mg/kg	02/01/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	02/01/13	AW	30 - 150 %
% TCMX	Diluted Out		%	02/01/13	AW	30 - 150 %

Page 7 of 18 Ver 2

Client ID: A-14-F-5(0-0.5)D

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

August 23, 2013

Reviewed and Released by: Loreen Fay, Project Manager

Phoenix I.D.: BD25082

Page 8 of 18 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

August 23, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: 12/26/12 14:25 **GZA-PCB** Received by: Location Code: SW 01/30/13 11:00 see "By" below

Rush Request: Standard Analyzed by:

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079

Phoenix ID: BD25083

Project ID: COMMERCIAL FOUNDRY DUPS

Client ID: A-4-F-1(D)

RL/ **PQL** Units Parameter Result Date/Time Βv Reference Percent Solid 98 % 01/30/13 E160.3 JL Extraction for PCB Completed 01/30/13 BB/A SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 02/01/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 02/01/13 AW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1232 0.33 mg/kg ND 02/01/13 ΑW 3540C/8082 PCB-1242 0.33 mg/kg 0.33 02/01/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 0.33 mg/kg 02/01/13 AW 02/01/13 3540C/8082 PCB-1260 ND 0.33 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 02/01/13 ΑW 3540C/8082 PCB-1268 ND 02/01/13 ΑW 3540C/8082 0.33 mg/kg 3540C/8082 0.33 02/01/13 AW Total PCBs 4 mg/kg **QA/QC Surrogates** % DCBP 85 % 02/01/13 AW 30 - 150 % 99 02/01/13 ΑW 30 - 150 % % TCMX %

> Page 9 of 18 Ver 2

Client ID: A-4-F-1(D)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD25083

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

August 23, 2013

Reviewed and Released by: Loreen Fay, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

August 23, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOLID Collected by: 12/26/12 16:10 Location Code: **GZA-PCB** Received by: SW 01/30/13 11:00 Standard Analyzed by: see "By" below

Rush Request:

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079

Phoenix ID: BD25084

Project ID: COMMERCIAL FOUNDRY DUPS

Client ID: A-10-F-15(0-0.5)D

RL/ **PQL** Units Parameter Result Date/Time Βv Reference Percent Solid 99 % 01/30/13 E160.3 JL Extraction for PCB Completed 01/30/13 BB/A SW3540C PCB (Soxhlet) PCB-1016 ND 1.6 mg/kg 02/01/13 ΑW 3540C/8082 PCB-1221 ND 1.6 mg/kg 02/01/13 AW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1232 1.6 mg/kg PCB-1242 ND 02/01/13 ΑW 3540C/8082 1.6 mg/kg 4 02/01/13 AW 3540C/8082 PCB-1248 1.6 mg/kg 3540C/8082 PCB-1254 ND 1.6 mg/kg 02/01/13 AW 02/01/13 3540C/8082 PCB-1260 ND 1.6 ΑW mg/kg PCB-1262 ND 1.6 mg/kg 02/01/13 ΑW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1268 1.6 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 02/01/13 AW 30 - 150 % % TCMX Diluted Out % 02/01/13 30 - 150 %

> Page 11 of 18 Ver 2

Client ID: A-10-F-15(0-0.5)D

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

August 23, 2013

Reviewed and Released by: Loreen Fay, Project Manager

Phoenix I.D.: BD25084

Page 12 of 18 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

August 23, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: 12/27/12 11:00 Location Code: **GZA-PCB** Received by: SW 01/30/13 11:00 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079

Phoenix ID: BD25085

Project ID: COMMERCIAL FOUNDRY DUPS

Client ID: A-5-F-5(0-0.5)D

RL/ **PQL** Units Parameter Result Date/Time Βv Reference Percent Solid 99 % 01/30/13 E160.3 JL Extraction for PCB Completed 01/30/13 BB/A SW3540C PCB (Soxhlet) PCB-1016 ND 1.6 mg/kg 02/01/13 ΑW 3540C/8082 PCB-1221 ND 1.6 mg/kg 02/01/13 AW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1232 1.6 mg/kg ND 02/01/13 ΑW 3540C/8082 PCB-1242 1.6 mg/kg 4.9 02/01/13 AW 3540C/8082 PCB-1248 1.6 mg/kg 3540C/8082 PCB-1254 ND 1.6 mg/kg 02/01/13 AW 02/01/13 3540C/8082 PCB-1260 ND 1.6 ΑW mg/kg PCB-1262 ND 1.6 mg/kg 02/01/13 ΑW 3540C/8082 ND 02/01/13 ΑW 3540C/8082 PCB-1268 1.6 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 02/01/13 AW 30 - 150 % % TCMX Diluted Out % 02/01/13 30 - 150 %

> Page 13 of 18 Ver 2

Client ID: A-5-F-5(0-0.5)D

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

August 23, 2013

Reviewed and Released by: Loreen Fay, Project Manager

Phoenix I.D.: BD25085

Page 14 of 18 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

August 23, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/27/12 12:45 Received by: Location Code: **GZA-PCB** SW 01/30/13 11:00 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** SDG ID: GBD25079

Phoenix ID: BD25086

COMMERCIAL FOUNDRY DUPS Project ID:

Client ID: A10-PW-4(D)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	01/31/13	LB	E160.3
Extraction for PCB	Completed			01/30/13	BB/A	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1221	ND	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1232	ND	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1242	ND	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1248	*	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1254	*	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1260	ND	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1262	ND	8	mg/kg	02/04/13	AW	3540C/8082
PCB-1268	ND	8	mg/kg	02/04/13	AW	3540C/8082
Total PCBs	53	8	mg/kg	02/04/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	02/04/13	AW	30 - 150 %
% TCMX	Diluted Out		%	02/04/13	AW	30 - 150 %

Page 15 of 18 Ver 2

Client ID: A10-PW-4(D)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD25086

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

August 23, 2013

Reviewed and Released by: Loreen Fay, Project Manager

Page 16 of 18 Ver 2

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

August 23, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 12/27/12 8:10 Received by: Location Code: **GZA-PCB** SW 01/30/13 11:00 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

**Laboratory Data** 

SDG ID: GBD25079 Phoenix ID: BD25087

COMMERCIAL FOUNDRY DUPS Project ID:

Client ID: A10-PW-7(D)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	01/31/13	LB	E160.3
Extraction for PCB	Completed			01/30/13	BB/A	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.82	mg/kg	02/01/13	AW	3540C/8082
PCB-1221	ND	0.82	mg/kg	02/01/13	AW	3540C/8082
PCB-1232	ND	0.82	mg/kg	02/01/13	AW	3540C/8082
PCB-1242	ND	0.82	mg/kg	02/01/13	AW	3540C/8082
PCB-1248	1.3	0.82	mg/kg	02/01/13	AW	3540C/8082
PCB-1254	ND	0.82	mg/kg	02/01/13	AW	3540C/8082
PCB-1260	ND	0.82	mg/kg	02/01/13	AW	3540C/8082
PCB-1262	ND	0.82	mg/kg	02/01/13	AW	3540C/8082
PCB-1268	ND	0.82	mg/kg	02/01/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	82		%	02/01/13	AW	30 - 150 %
% TCMX	86		%	02/01/13	AW	30 - 150 %

Page 17 of 18 Ver 2

Client ID: A10-PW-7(D)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

August 23, 2013

Reviewed and Released by: Loreen Fay, Project Manager

Phoenix I.D.: BD25087

Page 18 of 18 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

August 23, 2013

# QA/QC Data

SDG I.D.: GBD25079

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS MS % %		Rec Limits	RPD Limits
QA/QC Batch 219963, BD25086, BD25087)	QC Sample No: BD25080 (BD25079, BD	25080, BD2	5081, E	3D25082	, BD25083	, BD25084	1, BD2508	5,
Polychlorinated B	<u>iphenyls - Solid</u>							
PCB-1016	ND	79	76	3.9			40 - 140	30
PCB-1221	ND						40 - 140	30
PCB-1232	ND						40 - 140	30
PCB-1242	ND						40 - 140	30
PCB-1248	ND						40 - 140	30
PCB-1254	ND						40 - 140	30
PCB-1260	ND	69	67	2.9			40 - 140	30
PCB-1262	ND						40 - 140	30
PCB-1268	ND						40 - 140	30
% DCBP (Surrogate Rec)	74	76	71	6.8			30 - 150	30
% TCMX (Surrogate Rec)	78	82	77	6.3			30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

**RPD** - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis Shiller, Laboratory Director

August 23, 2013

Friday, August 23, 2013

**Sample Criteria Exceedences Report** 

**GBD25079 - GZA-PCB** 

State: CT

Requested Criteria: None

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

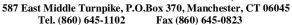
Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY DUP **Project Number:** Laboratory Sample ID(s): BD25079, BD25080, BD25081, BD25082, BD25083, BD25084, BD25085, BD25086, BD25087 **Sampling Date(s):** 12/24/2012, 12/26/2012, 12/27/2012 **RCP Methods Used:** 1311/1312 6010 7000 ☐ EPH ☐ TO15 7196 7470/7471 8081 ✔ 8082 8151 8260 8270 ETPH 9010/9012 ☐ VPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) Were all samples received by the laboratory in a condition consistent with that 2. ✓ Yes □ No described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No ☐ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ☐ Yes ✓ No Were these reporting limits met? 5b. ☐ Yes ☐ No **✓** NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No  $\square$  NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ☐ Yes ✓ No NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Friday, August 23, 2013 Authorized Printed Name: Maryam Taylor Signature: Position: Project Manager







# **RCP Certification Report**

August 23, 2013

**SDG I.D.: GBD25079** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 02/01/13-1 (BD25079, BD25080, BD25082, BD25083, BD25084,

BD25085, BD25087)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 2/1/2013

**Instrument:** Au-ecd24 02/04/13-1 (BD25081, BD25086)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 2/4/2013

#### QC (Site Specific)

----- Sample No: BD25080, QA/QC Batch: 219963 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.

Coolant: IPK | ICE | N

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	Comments, Special Requirements or Regulations: $C = 1290$	ial Requirements	s or Regulations: - 12.90.9		and the second	3080	Turnaround:			GB Mobility	S-2		Data Package	ţ
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#### Loreen - Phoenixlabs

From:

Anthony J. Trani [Anthony.Trani@gza.com]

Sent: To: Wednesday, January 30, 2013 9:59 AM

io: Subject: Loreen - Phoenixlabs RE: December samples

Okay, lets have the dups for PCBs run on the following samples:

Soil Samples: 51 Samples; need 3 QA/QC

BD12628 - A-14-S-4 = 420 mg/kg

 $\sim$  BD12637 - A-14-S-3 = 710 mg/kg

BD12638 - Orangeburg Pipe = 6,100 mg/kg

Concrete Floor Samples: 76 Samples; need 4 QA/QC

BD13694 - A-14-F-5 (0-0.5) = 20 mg/kg

BD12969 - A-4-F-1 = 3.9 mg/kg

BD12997 - A-10-F-15 (0-0.5) = 4.4 mg/kg

BD12980 - A-5-F-5 (0-0.5) = 9.6 mg/kg

Ceiling Samples: 15 Samples; need 1 QA/QC

No samples available

Paint/Wall Samples: 24 Samples; need 2 QA/QC

BD13683 - A10-PW-4 = 52 mg/kg BD13686 - A10-PW-7 = 1.2 mg/kg

Thanks Anthony

**From:** Loreen - Phoenixlabs [mailto:loreen@phoenixlabs.com]

Sent: Wednesday, January 30, 2013 9:36 AM

To: Anthony J. Trani

Subject: RE: December samples

I have 13683, 13870, 13686...will any of these work? Loreen

**From:** Anthony J. Trani [mailto:Anthony.Trani@gza.com]

Sent: Wednesday, January 30, 2013 9:26 AM

To: Loreen - Phoenixlabs

Subject: RE: December samples

Loreen,

The PW samples are paint chip samples. Do you have any samples with a PW in them that we can resample?

**From:** Loreen - Phoenixlabs [mailto:loreen@phoenixlabs.com]

Sent: Wednesday, January 30, 2013 8:54 AM

**To:** Anthony J. Trani **Cc:** 'Bobbi - Phoenixlabs'

Subject: RE: December samples

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23 Fax #	587 East Middle Turnpike, Manchester, CT 06040 mail: info@phoenixlabs.com Fax (860) 645-0823	587 East Middle Turnpike, N Email: info@phoenixlabs.com	58 Ema	SWELL STATE			
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A Corrected ID 8123/13 (4)

Coolant: IPK | ICE | N |



Wednesday, July 03, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY

Sample ID#s: BD99309

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B

VT Lab Registration #VT11301

PA Lab Registration #68-03530

NJ Lab Registration #CT-003

NY Lab Registration #11301

RI Lab Registration #63



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 03, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOLID Collected by: 07/01/13 9:30 **GZA-PCB** Received by: Location Code: LB 07/01/13 11:22 Rush Request: 24 Hour Analyzed by: see "By" below

rtaori itoquoot. 21110ai

P.O.#: 43369.83

\_aboratory Data SDG ID: GBD99309

Phoenix ID: BD99309

Project ID: COMMERCIAL FOUNDRY

Client ID: ORANGE-1

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid % 07/01/13 E160.3 88 JL Extraction for PCB Completed 07/01/13 PP/HB SW3540C PCB (Soxhlet) PCB-1016 ND 2100 mg/kg 07/02/13 ΑW 3540C/8082 PCB-1221 ND 2100 mg/kg 07/02/13 AW 3540C/8082 3540C/8082 ND 2100 07/02/13 ΑW PCB-1232 mg/kg PCB-1242 ND 2100 07/02/13 ΑW 3540C/8082 mg/kg 23000 2100 07/02/13 AW 3540C/8082 PCB-1248 mg/kg ND 3540C/8082 PCB-1254 2100 mg/kg 07/02/13 AW 2100 3540C/8082 PCB-1260 ND 07/02/13 ΑW mg/kg PCB-1262 ND 2100 mg/kg 07/02/13 ΑW 3540C/8082 ND 2100 07/02/13 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 07/02/13 AW 30 - 150 % % TCMX Diluted Out % 07/02/13 30 - 150 %

Page 1 of 2 Ver 1

Client ID: ORANGE-1

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 03, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD99309

Page 2 of 2 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

July 03, 2013

# QA/QC Data

SDG I.D.: GBD99309

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 238220, QC S	Sample No: BD98923 (BD99309)								
Polychlorinated Biphe	nyls - Solid								
PCB-1016	ND	91	93	2.2	110	106	3.7	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	91	93	2.2	98	98	0.0	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	86	89	93	4.4	131	133	1.5	30 - 150	30
% TCMX (Surrogate Rec)	86	89	91	2.2	99	101	2.0	30 - 150	30
Comment:									
BD99276 WS BROUHT TO 10	OML INSTEAD OF 5ML								

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

**RPD** - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

July 03, 2013

Wednesday, July 03, 2013

# **Sample Criteria Exceedences Report**

**GBD99309 - GZA-PCB** 

State: CT

Requested Criteria: GAM, RC

	State: CT						RL	Analysis
SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
BD99309	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2100000	1000	1000	ug/Kg
BD99309	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2100000	1000	1000	ug/Kg
BD99309	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2100000	1000	1000	ug/Kg
BD99309	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2100000	1000	1000	ug/Kg
BD99309	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	23000000	2100000	1000	1000	ug/Kg
BD99309	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2100000	1000	1000	ug/Kg
BD99309	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2100000	1000	1000	ug/Kg
BD99309	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2100000	1000	1000	ug/Kg
BD99309	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2100000	1000	1000	ug/Kg

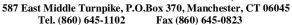
Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Labo	Laboratory Name: Phoenix Environmental Labs, Inc. Client: GZA-PCB														
Proje	Project Location: COMMERCIAL FOUNDRY Project Number:														
Labo	Laboratory Sample ID(s): BD99309														
Sam	pling Date	e(s): 7/1/2	2013												
RCP	Methods	Used:													
13											TO15				
<b>✓</b> 80	)82 [	8151	8260	8270	☐ E	ГРН	9010/9	012	☐ VPH						
1.	specified Q any criteria	A/QC perfor falling outside	mance criteri de of accepta	ed in this labora a followed, incl ble guidelines, tocol documer	luding that as spec	ne require	ment to exp	olain	✓ Yes	□ No					
1a.	Were the m	nethod spec	ified preserva	tion and holdin	ıg time ı	equireme	nts met?		✓ Yes	□No					
1b.				he VPH or EP 11.3 of respec				t	☐ Yes	□ No	<b>☑</b> NA				
2.				oratory in a co of-Custody doc			with that		✓ Yes	□No					
3.	Were samp	oles received	l at an approp	oriate temperat	ure (< 6	Degrees	C)?		☐ Yes	✓ No	$\square$ NA				
4.	Were all QA documents		mance criteria	a specified in th	ne Reas	onable Co	onfidence P	rotocol	✓ Yes	□ No					
5a.	Were repor	ting limits sp	ecified or ref	erenced on the	chain-	of-custody	?		✓ Yes	□No					
5b.	Were these	e reporting lin	mits met?						✓ Yes	□No	□NA				
6.	reported for	r all constitu	ents identified	ed in this labora I in the method I documents?					✓ Yes	□ No	□NA				
7.	Are project	-specific ma	trix spikes an	d laboratory du	plicates	included	in the data	set?	☐ Yes	✓ No	□NA				
Note:	Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".														
and	I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.														
			1.1.				Date:	Wedne	esday, Jul	y 03, 20	13				
	horized nature:		Locato	one		Printe	ed Name:		•	-					
									ant Lab Di	stant Lab Director					







# **RCP Certification Report**

July 03, 2013

**SDG I.D.: GBD99309** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd7 07/02/13-1 (BD99309)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/2/2013

**QC Comments:** QC Batch 238220 07/01/13 (BD99309)

BD99276 WS BROUHT TO 10ML INSTEAD OF 5ML

#### QC (Batch Specific)

----- Sample No: BD98923, QA/QC Batch: 238220 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**

The samples in this delivery group were received at 24°C. (Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes No	Temp	Sco - 858-3135	M	completed with Bottle Quantities.	1400/200		Top die die de la contra l	9 9					MCP Certification X Excel  GW-1  CWA		☐ Orner  Data Package ☐ Tier II Checklist	S-3  MWRA eSMART	27 SURCHARGE APPLIES
	RECORD	Fax: Phone:  Email:	mercial Fourthry Pro				\$6\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\					Z I		SW Protection  GA Mobility	<u> </u>	I/C DEC   S-3	State where samples were collected:
	<b>CHAIN OF CUSTODY RECORD</b>	587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726		Invoice to: Same	Analysis	nsanhau lisanhau	Del Del	X				Time:	7-1-13 1122		Turnaround:		Other * SURCHARGE APPLIES
		Mall.	monded Inc.	6 /	on - Identification Date:	GW=Ground Water SW=Surface Water WW=Waste Water Sediment SL=Sludge S=Soil SD=Solid W=Wipe iquid	Sample Date Time Matrix Sampled Sampled	-				ivi	of Orlogan	<b>&gt;</b>	ons:		
		PHOENIX Environmental Laboratories, Inc.	97	Glas Tambun L	Client Sample - Information - Identification	1 5.7	ONLY Customer Sample Identification	-1 Orange -1				by: Accepted by:	Jan Chun		Comments, Special Requirements or Regulations:  Defector Imit 0.5 pm.		
		PH Environ	Customer: Address:		Sampler's Signature	Matrix Code: DW=Drinking Water RW=Raw Water SE OIL=Oil B=Bulk L:	PHOENIX USE ONLY SAMPLE#	0ावप्य				Relinguished by	A TOP OF THE PROPERTY OF THE P		Comments, Special Re-		



Monday, July 15, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY COMPANIES

Sample ID#s: BD99551 - BD99553, BD99556 - BD99558, BD99560, BD99562,

BD99565 - BD99567, BD99569 - BD99570, BD99574

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007

NH Lab Registration #213693-A,B

RI Lab Registration #63 VT Lab Registration #VT11301

PA Lab Registration #68-03530

NJ Lab Registration #CT-003

NY Lab Registration #11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 10:00 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

**Laboratory Data** 

SDG ID: GBD99551

Phoenix ID: BD99551

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-12 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 95 % 07/10/13 E160.3 JL Extraction for PCB Completed 07/10/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/11/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/11/13 AW 3540C/8082 3540C/8082 ND 07/11/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/11/13 ΑW 3540C/8082 0.34 mg/kg 2.3 0.34 07/11/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/11/13 AW 3540C/8082 PCB-1260 ND 0.34 07/11/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/11/13 ΑW 3540C/8082 ND 07/11/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 94 % 07/11/13 AW 30 - 150 % % TCMX 88 % 07/11/13 30 - 150 %

Page 1 of 28 Ver 2

Client ID: A-14-F-12 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99551

Page 2 of 28 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 12:10 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

Rusii Request. Standard

P.O.#: 4336983

Laboratory Data SDG ID: GBD99551

Phoenix ID: BD99552

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-13 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 95 % 07/10/13 E160.3 JL Extraction for PCB Completed 07/10/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/11/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/11/13 AW 3540C/8082 3540C/8082 ND 07/11/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/11/13 ΑW 3540C/8082 0.34 mg/kg ND 0.34 07/11/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/11/13 AW 3540C/8082 PCB-1260 ND 0.34 07/11/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/11/13 ΑW 3540C/8082 ND 07/11/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 70 % 07/11/13 AW 30 - 150 % % TCMX 86 % 07/11/13 30 - 150 %

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Client ID: A-14-F-13 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99552

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 12:20 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

**Laboratory Data** 

SDG ID: GBD99551

Phoenix ID: BD99553

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-14 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 98 % 07/10/13 E160.3 JL Extraction for PCB Completed 07/10/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 07/11/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 07/11/13 AW 3540C/8082 3540C/8082 ND 07/11/13 ΑW PCB-1232 0.33 mg/kg PCB-1242 ND 0.33 07/11/13 ΑW 3540C/8082 mg/kg ND 0.33 07/11/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 07/11/13 AW 3540C/8082 PCB-1260 ND 0.33 07/11/13 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 07/11/13 ΑW 3540C/8082 ND 0.33 07/11/13 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP 69 % 07/11/13 AW 30 - 150 % % TCMX 86 % 07/11/13 30 - 150 %

Page 5 of 28 Ver 2

Client ID: A-14-F-14 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99553

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 10:15 Location Code: **GZA-PCB** Received by: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

**Laboratory Data** 

SDG ID: GBD99551

Phoenix ID: BD99556

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-17 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 98 % 07/01/13 E160.3 JL Extraction for PCB Completed 07/01/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 3.3 mg/kg 07/08/13 ΑW 3540C/8082 PCB-1221 ND 3.3 mg/kg 07/08/13 AW 3540C/8082 3540C/8082 ND 07/08/13 ΑW PCB-1232 3.3 mg/kg PCB-1242 ND 07/08/13 ΑW 3540C/8082 3.3 mg/kg 07/08/13 AW 3540C/8082 PCB-1248 15 3.3 mg/kg 3540C/8082 PCB-1254 ND 3.3 mg/kg 07/08/13 AW 07/08/13 3540C/8082 PCB-1260 ND 3.3 ΑW mg/kg PCB-1262 ND 3.3 mg/kg 07/08/13 ΑW 3540C/8082 ND 07/08/13 ΑW 3540C/8082 PCB-1268 3.3 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 07/08/13 AW 30 - 150 % % TCMX Diluted Out % 07/08/13 30 - 150 %

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Client ID: A-14-F-17 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99556

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**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 10:20 Location Code: **GZA-PCB** Received by: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

**Laboratory Data** 

SDG ID: GBD99551

Phoenix ID: BD99557

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-18 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 98 % 07/01/13 E160.3 JL Extraction for PCB Completed 07/01/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 17 mg/kg 07/03/13 ΑW 3540C/8082 PCB-1221 ND 17 mg/kg 07/03/13 AW 3540C/8082 3540C/8082 ND 07/03/13 ΑW PCB-1232 17 mg/kg PCB-1242 ND 07/03/13 ΑW 3540C/8082 17 mg/kg 07/03/13 AW 3540C/8082 PCB-1248 110 17 mg/kg 3540C/8082 PCB-1254 ND 17 mg/kg 07/03/13 AW 07/03/13 3540C/8082 PCB-1260 ND 17 ΑW mg/kg PCB-1262 ND 17 mg/kg 07/03/13 ΑW 3540C/8082 ND 07/03/13 ΑW 3540C/8082 PCB-1268 17 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 07/03/13 AW 30 - 150 % % TCMX Diluted Out % 07/03/13 30 - 150 %

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Client ID: A-14-F-18 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99557

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 12:25 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

**Laboratory Data** 

SDG ID: GBD99551

Phoenix ID: BD99558

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-19 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 97 % 07/10/13 E160.3 JL Extraction for PCB Completed 07/10/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/11/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/11/13 AW 3540C/8082 3540C/8082 ND 07/11/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/11/13 ΑW 3540C/8082 0.34 mg/kg ND 0.34 07/11/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/11/13 AW 3540C/8082 PCB-1260 ND 0.34 07/11/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/11/13 ΑW 3540C/8082 ND 07/11/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 68 % 07/11/13 AW 30 - 150 % % TCMX 83 % 07/11/13 30 - 150 %

Page 11 of 28 Ver 2

Client ID: A-14-F-19 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99558

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 12:50 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

**Laboratory Data** 

SDG ID: GBD99551

Phoenix ID: BD99560

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-21 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 97 % 07/01/13 JL E160.3 Extraction for PCB Completed 07/02/13 PP/HB SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 07/05/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 07/05/13 AW 3540C/8082 3540C/8082 ND 07/05/13 ΑW PCB-1232 0.33 mg/kg PCB-1242 ND 0.33 07/05/13 ΑW 3540C/8082 mg/kg 0.33 07/05/13 AW 3540C/8082 PCB-1248 0.5 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 07/05/13 AW 3540C/8082 PCB-1260 ND 0.33 07/05/13 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 07/05/13 ΑW 3540C/8082 ND 0.33 07/05/13 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP 92 % 07/05/13 AW 30 - 150 % % TCMX 86 % 07/05/13 30 - 150 %

Page 13 of 28 Ver 2

Client ID: A-14-F-21 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99560

Page 14 of 28 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 11:05 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

Laboratory Data

SDG ID: GBD99551

Phoenix ID: BD99562

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-23 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 98 % 07/01/13 E160.3 JL Extraction for PCB Completed 07/01/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/02/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/02/13 AW 3540C/8082 3540C/8082 ND 07/02/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/02/13 ΑW 3540C/8082 0.34 mg/kg ND 0.34 07/02/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/02/13 AW 3540C/8082 PCB-1260 ND 0.34 07/02/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/02/13 ΑW 3540C/8082 ND 07/02/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 108 % 07/02/13 AW 30 - 150 % % TCMX 84 % 07/02/13 30 - 150 %

Page 15 of 28 Ver 2

Client ID: A-14-F-23 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99562

Page 16 of 28 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 11:20 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

<u>Laboratory Data</u>

SDG ID: GBD99551

Phoenix ID: BD99565

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-26 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 98 % 07/01/13 E160.3 JL Extraction for PCB Completed 07/01/13 /K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/02/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/02/13 AW 3540C/8082 3540C/8082 ND 07/02/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/02/13 ΑW 3540C/8082 0.34 mg/kg ND 0.34 07/02/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/02/13 AW 3540C/8082 PCB-1260 ND 0.34 07/02/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/02/13 ΑW 3540C/8082 ND 07/02/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 97 % 07/02/13 AW 30 - 150 % % TCMX 79 % 07/02/13 30 - 150 %

Page 17 of 28 Ver 2

Client ID: A-14-F-26 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99565

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 10:35 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

Laboratory Data

SDG ID: GBD99551

Phoenix ID: BD99566

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-27 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result By Reference Percent Solid 98 % 07/01/13 JL E160.3 Extraction for PCB Completed 07/01/13 /K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/03/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/03/13 AW 3540C/8082 3540C/8082 ND 07/03/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/03/13 ΑW 3540C/8082 0.34 mg/kg 0.34 07/03/13 AW 3540C/8082 PCB-1248 0.34 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/03/13 AW 3540C/8082 PCB-1260 ND 0.34 07/03/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/03/13 ΑW 3540C/8082 ND 07/03/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 96 % 07/03/13 AW 30 - 150 % % TCMX 91 % 07/03/13 30 - 150 %

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Client ID: A-14-F-27 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99566

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 10:40 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

**Laboratory Data** 

SDG ID: GBD99551

Phoenix ID: BD99567

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-28 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 98 % 07/01/13 E160.3 JL Extraction for PCB Completed 07/01/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/03/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/03/13 AW 3540C/8082 3540C/8082 ND 07/03/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/03/13 ΑW 3540C/8082 0.34 mg/kg 0.57 0.34 07/03/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/03/13 AW 3540C/8082 PCB-1260 ND 0.34 07/03/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/03/13 ΑW 3540C/8082 ND 07/03/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 98 % 07/03/13 AW 30 - 150 % % TCMX 82 % 07/03/13 30 - 150 %

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Client ID: A-14-F-28 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99567

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 12:05 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

<u>Laboratory Data</u>

SDG ID: GBD99551

Phoenix ID: BD99569

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-30 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 97 % 07/10/13 E160.3 JL Extraction for PCB Completed 07/10/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/11/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/11/13 AW 3540C/8082 3540C/8082 ND 07/11/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/11/13 ΑW 3540C/8082 0.34 mg/kg ND 0.34 07/11/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/11/13 AW 3540C/8082 PCB-1260 ND 0.34 07/11/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/11/13 ΑW 3540C/8082 ND 07/11/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 69 % 07/11/13 AW 30 - 150 % % TCMX 84 % 07/11/13 30 - 150 %

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Client ID: A-14-F-30 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99569

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**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 11:35 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

<u>Laboratory Data</u>

SDG ID: GBD99551

Phoenix ID: BD99570

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-31 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 97 % 07/01/13 JL E160.3 Extraction for PCB Completed 07/02/13 PP/HB SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/05/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/05/13 AW 3540C/8082 3540C/8082 ND 07/05/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/05/13 ΑW 3540C/8082 0.34 mg/kg 0.44 07/05/13 AW 3540C/8082 PCB-1248 0.34 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/05/13 AW 3540C/8082 PCB-1260 ND 0.34 07/05/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/05/13 ΑW 3540C/8082 ND 07/05/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 98 % 07/05/13 AW 30 - 150 % % TCMX 92 % 07/05/13 30 - 150 %

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Client ID: A-14-F-31 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99570

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**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 12:10 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

Laboratory Data

SDG ID: GBD99551

Phoenix ID: BD99574

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-35 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 96 % 07/10/13 E160.3 JL Extraction for PCB Completed 07/10/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/11/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/11/13 AW 3540C/8082 3540C/8082 ND 07/11/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/11/13 ΑW 3540C/8082 0.34 mg/kg 0.34 07/11/13 AW 3540C/8082 PCB-1248 1.7 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/11/13 AW 3540C/8082 PCB-1260 ND 0.34 07/11/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/11/13 ΑW 3540C/8082 ND 07/11/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 97 % 07/11/13 AW 30 - 150 % % TCMX 102 % 07/11/13 30 - 150 %

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Client ID: A-14-F-35 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99574

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# QA/QC Report

July 15, 2013

# QA/QC Data

SDG I.D.: GBD99551

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 238273, QC Sa	mnla No: RD08024 (RD0	00556 RD00557 RD0	0562 B	D00545	S RD0	0566)			
Polychlorinated Biphen	•	77000, 6077007, 607	930Z, D	D77300	), DD9	7300)			
•	<u>-</u>	90	91	1 1				40 140	20
PCB-1016 PCB-1221	ND ND	90	91	1.1				40 - 140 40 - 140	30 30
PCB-1221 PCB-1232	ND ND							40 - 140	30
PCB-1232 PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	88	88	0.0				40 - 140	30
PCB-1262	ND	00	00	0.0				40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	85	85	86	1.2				30 - 150	30
% TCMX (Surrogate Rec)	86	90	91	1.1				30 - 150	30
QA/QC Batch 239784, QC Sa					S BD0	9560 R	D99574		
Polychlorinated Biphen		77331, 0077332, 007	7333, D	D77330	), DD7	7307, D	D77374	,	
PCB-1016	ND	77	75	2.6	79	86	8.5	40 - 140	30
PCB-1221	ND	,,	73	2.0	,,	00	0.5	40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	78	81	3.8	85	83	2.4	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	84	86	87	1.2	85	86	1.2	30 - 150	30
% TCMX (Surrogate Rec)	81	86	84	2.4	88	88	0.0	30 - 150	30
QA/QC Batch 238490, QC Sa	mple No: BD99560 (BD9	99560. BD99570)							
Polychlorinated Biphen		, , , , , , , , , , , , , , , , , , , ,							
PCB-1016	ND	89	85	4.6	93	89	4.4	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	96	91	5.3	99	97	2.0	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	94	94	90	4.3	86	87	1.2	30 - 150	30
% TCMX (Surrogate Rec)	90	100	97	3.0	94	96	2.1	30 - 150	30
QA/QC Batch 238311, QC Sa	mple No: BD99773 (BD9	99567)							
Polychlorinated Biphen	yls - Solid								
PCB-1016	ND	85	78	8.6	89			40 - 140	30

SDG LD ·	GBD99551
3001.0	GDD77331

Phyllis/Shiller, Laboratory Director July 15, 2013

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	87	85	2.3	90			40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	87	84	86	2.4	88			30 - 150	30
% TCMX (Surrogate Rec)	73	85	75	12.5	83			30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Monday, July 15, 2013

Sample Criteria Exceedences Report
GBD99551 - GZA-PCB

State: CT

Requested Criteria: None

RL Analysis SampNo Acode Phoenix Analyte Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

## Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Labo	oratory Name: Phoei	nix Environi	mental Lab	s, Inc. C	Client:		GZA-	PCB		
Proje	ect Location: COM	MERCIAL F	OUNDRY (	COM F	Project	Number:				
Labo	oratory Sample ID(s):	BD99558 BD99565	BD99552, BD99559, BD99566, BD99573,	BD9956 BD9956	0, BD99 7, BD99	9561, BD9	9562, E	3D99563,	BD9956	4,
Sam	pling Date(s): 6/30/2	2013								
RCP	Methods Used:									
13	311/1312	7000	<b>7196</b>	747	0/7471	8081		_ EPH		TO15
<b>✓</b> 80	082 🗌 8151	8260	8270	_ ETF	РΗ	9010/90	)12	☐ VPH		
1.	For each analytical meth specified QA/QC perforr any criteria falling outside specific Reasonable Cor	nance criteria e of acceptab	followed, inc le guidelines	cluding the , as specif	e require	ment to expl	lain	✓ Yes	□No	
1a.	Were the method specif	ed preservati	ion and holdi	ng time re	quireme	nts met?		✓ Yes	□ No	
1b.	EPH and VPH methods significant modifications							□ Yes	□No	✓ NA
2.	Were all samples receive described on the associa					with that		✓ Yes	□No	
3.	Were samples received	at an approp	riate tempera	ture (< 6 I	Degrees	C)?		✓ Yes	□ No	□NA
4.	Were all QA/QC perform documents achieved?	ance criteria	specified in t	he Reaso	nable Co	onfidence Pr	rotocol	✓ Yes	□ No	
5a.	Were reporting limits spe	ecified or refe	renced on th	e chain-of	-custody	?		✓ Yes	□No	
5b.	Were these reporting lim	its met?						✓ Yes	$\square$ No	$\square$ NA
6.	For each analytical meth reported for all constitue the Reasonable Confide	nts identified	in the method	d-specific				✓ Yes	□No	□NA
7.	Are project-specific matr	ix spikes and	laboratory d	uplicates i	ncluded	in the data s	set?	✓ Yes	□No	□NA
Note:	For all questions to whic provided in an attached in requirements for "Reaso	narrative. If th	ne answer to c							
and	e undersigned, attes belief and based up tained in this analyti	on my pers	sonal inqui	iry of the	ose res	ponsible	for pro	viding th		
	horized nature:	Hoodon	me		Printe	Date:		y, July 15 _awrence		
	-	0				Position:	Assista	ınt Lab Di	rector	



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



## **RCP Certification Report**

July 15, 2013

SDG I.D.: GBD99551

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** <u>Au-ecd1 07/03/13-1 (BD99557, BD99566, BD99567)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/3/2013

**Instrument:** Au-ecd1 07/08/13-1 (BD99556)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/8/2013

**Instrument:** Au-ecd1 07/11/13-1 (BD99551, BD99552, BD99553, BD99558, BD99569, BD99574)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/11/2013

**Instrument:** Au-ecd24 07/02/13-1 (BD99562, BD99565)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none



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## **RCP Certification Report**

July 15, 2013

**SDG I.D.: GBD99551** 

Printed Name Adam Werner Position: Chemist Date: 7/2/2013

**Instrument:** Au-ecd5 07/05/13-1 (BD99556)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/5/2013

**Instrument:** Au-ecd5 07/11/13-1 (BD99552)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/11/2013

**Instrument:** Au-ecd6 07/05/13-1 (BD99560, BD99570)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/5/2013

**Instrument:** <u>Au-ecd7 07/03/13-1 (BD99560, BD99570)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none



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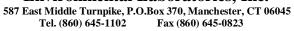
# **RCP Certification Report**

July 15, 2013

**SDG I.D.: GBD99551** 

Printed Name Adam Werner Position: Chemist Date: 7/3/2013







# **RCP Certification Report**

July 15, 2013

SDG I.D.: GBD99551

QC (Site Specific) Sample No: BD99552, QA/QC Batch: 239784
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Sample No: BD99560, QA/QC Batch: 238490
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria. <b>QC (Batch Specific)</b> Sample No: BD98924, QA/QC Batch: 238273
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Sample No: BD99773, QA/QC Batch: 238311
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.



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## **RCP** Certification Report

July 15, 2013

**SDG I.D.: GBD99551** 

## **Temperature Narration**

The samples in this delivery group were received at  $6^{\circ}$ C. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

Cooler: Yes ☐ No ☐	ا م ک	092a.am	426.87 860-858-3125 860-652-8590,	1400 116		THOON TO SCIP												Data Format	Excel	☐ GIS/Key ☐ EQuIS	☐ Other  Data Package ☐ Tier II Chacklist	Full Data Package*  Phoenix Std Report	Uther SURCHARGE APPLIES
6 WI LANGERT. IPKI	Temp	Data Delivery:    Fax #     Email: jan.es. huttan @929. ann	Project P.O: 4 Phone #: 860 Fax #: 800	037		1												MA Codification	GW-1	☐ GW-2 ☐ GW-3	S-5	S-3 MWRA eSMART	ted:
		,	Fordry Companies			\$ 105 105 B	$\times$						* N. T.				<b>→</b>	RR CT		SW Protection	GB Mobility	Residential DEC	State where samples were collected:
	<b>CHAIN OF CUSTODY RECORD</b>	587 East Middle Turnpike, Manchester, CT 06040 nail: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Jim Hilly Jim Hilly	Copy	2.3		PLACE ON HOLD			->		ť	PLACE ON POLD	>		$\mathcal{I}$				10   Cw			
	CHAIN OF C	587 East Middle Tumpike, M Email: info@phoenixlabs.com Client Services (8	Project: Report to: Invoice to:	Analysis Request	35,30,30				<del>/</del>								<b>&gt;</b>	Date:	21/05/9	871113	Turnaround:	2 Days*	XI Standard  Other  *SURCHARGE APPLIES
	)	Ш	C, 50.11 402,	on Date: 6/24/13	WW=Waste Water O=Other	Date Time Sampled Sampled		0101	000	12.0	5101	oeoi	7661	1930	250		<b>→</b>			*	et schor		
		i, Inc.	Brook Drive	tion - Identificati	/=Surface Water	Sample Matrix	0	(S)	3	30	(2	(\$1	S	15	S	13	J) (57	λq p	Action of	\ \ \ \ \	ations:		FMJP
		DENIX SERVICE SERVICES SERVICE	GISTONEY	Client Sample - Information - Identification	Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Soild W=Wipe O=Other	Customer Sample Identification	A-14-F-12 (0-0.5)	A-14-F-13 (0-0.5)	A-14-F-14 (0-0.5)	12-17-17-18 (0-05)	A-14-F-17 (0-0.5)	1-14-F-18 (0-05)	A-14-F-19(0-05)	A-14-F-20 CO-05)	-14-F	A - 14 1-22 (0-05)	A-14F-23(0-05)	Accepted by	7		of Ments Special Requirements or Regulations:	Detection limits 0,5 mg/kg	F Sample nut perid frage
		PHOE  Environmental	Customer: Address:	Sampler's Signature	Matrix Code: DW=Drinking Water SE=Sediment SL	PHOENIX USE ONLY SAMPLE #	15566	99553	29.553	9955	95566	4325	2953	79554	22200	W SOL	99561 1	Relinguished by	Track ?	16 de V.	Conments Special	Delection lin	FSamy

	CHAIN OF CUSTODY RECORD	:	Cooler: DK Coolant: IPK	Yes No C
PHOENIX	587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823	Data Data	# O 02/	200
Environmental Laboratories, Inc.	Ciletti Services (000) 045-0720	Email:	2/ > 10.10.6	
12 0 12 0 (C) 1 330	Commercial	Founds Companies Proje	ö	>> ->12c
Address: Des Winding Brook Mix, suit 402.	Invoice to: Jin Kyflan	Fax #:	860-652-8590	- 8390
Sampler's Control Sample - Information - Identification Sampler's Signature Control Signature	Analysis Request		Ott.	140001
Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Soild W=Wipe O=Other	Son Acros	1 10 10 10 10 10 10 10 10 10 10 10 10 10	S S INGO	Silver Silver
ASAMPLE # Identification		10 10 10 10 10 10 10 10 10 10 10 10 10 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A ellegole de la constantia de la consta
51/pc/9 0 (5.0-0)	X PLACE ON HOLD			
70 50 A-M-F-25 (0-0.5)	***			
(50-0)				
99901 ANIES (0-05) 1040				
99 508 AM-F23 (0.05) 1155	PLACE ON ADLD			
(0-0,5)	->			
(5.0-0)				
201 (300) (300) (300) (300)	PLAKE ON HOLD			
12-14-F- 20 (0-03)				
(0.0.s) V	<b>A</b>	<i>↑</i>		
d by: Accepted by:	Time:		Da	rmat
Outly an Margh 144 B	6/32/13 1250 Direct Exposure (Residential)		ertification Excel	<u></u>
Fright of Mand Mand	113 10° 0w	<u> </u>	GIS/Key	Key IS
Confinence, Special Regulants or Regulations:	Turnaround:	GB Mobility S-1	Data Package	Other ta Package
J. Detection limit os my/1/5	2 Days*		S-3 AWRA eSMART Dho	Full Data Package*
	Standard	Other Other		•
	State where	State where samples were collected:	Z surc	* SURCHARGE APPLIES

HO	CHAIN OF CUSTODY RECORD		Cooler: Yes Temp Cooler: Yes Temp Cooler: OCF OCF OCF OF STREET	N N N
Environmental Laboratories, Inc.	587 East Middle Turnpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-08; Client Services (860) 645-8726	23	Data Delivery:	
Customer: GZA Address: 655 Winding Brook DAK, SCIK 402 Glestonburg, CT	Project: Gnan. Report to: Jim Invoice to: Jim	Connected Fordey Companies Jim Hotton	Project P.O: 436/87 Phone #: 860-858-373	
Sampler's Confermation - Identification Signature Confermation - Identification Signature Date: 6/34/13	Analysis Request		/ / 4	1 1
Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water  SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	37200		1005 1005 1000 100 100 100 100 100 100 1	914
PHOENIX USE ONLY Customer Sample Sample Time SAMPLE# Identification Matrix Sampled Sampled	2800	15 15 15 15 1 1 1 1 1 1 1 1 1 1 1 1 1 1		A eligibed
5/62/3 O (2.0.0) C1-7- H1-A /	X PLACE ON HOLD			
99552 A-14-F-18 (0-0.5) 1010 90552 D-14-F-14 (0-0.5)				
A-14-F-16 (0.05)	->  			
101 (10-0) - 1-4-4-7 a 22 22 22 22 22 22 22 22 22 22 22 22 2				
	PLACE ON H	Hold		
	->			
99560 A-IN-F-21 (005) 1250	<b>9</b>			
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Ě	-	Olizard Exposure	MA Data Format MCP Certification	
Cardy In a files and the	6/02/ 5//02/0	} 🗆 [	GW-1 CISKev	
the device the same of the	11/13	SW Protection	GW-2 Couls	
Confinents/Special Requirements or Regulations:	Turnaround:	GB Mobility Residential DEC		list
Defection limits 0.5 mg/log	☐ 2 Days* ☐ 3 Days* ※ Standard	∥ VC DEC ☐ Other	S-3 Full Data Package*  MWRA eSMART Phoenix Std Report  Other Other	ckage* Report
Frample not periodemorp	Connection of the control of the con	State where samples were collected:	رح ا	PPLIES



**Tuesday, July 23, 2013** 

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY COMPANIES

Sample ID#s: BD99568, BD99571 - BD99573

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 23, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 11:55 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

<u> Laboratory Data</u>

SDG ID: GBD99551

Phoenix ID: BD99568

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-29 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 99 % 07/15/13 E160.3 JL Extraction for PCB Completed 07/18/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.33 mg/kg 07/19/13 ΑW 3540C/8082 PCB-1221 ND 0.33 mg/kg 07/19/13 AW 3540C/8082 3540C/8082 ND 07/19/13 ΑW PCB-1232 0.33 mg/kg PCB-1242 ND 0.33 07/19/13 ΑW 3540C/8082 mg/kg 0.89 0.33 07/19/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.33 mg/kg 07/19/13 AW 3540C/8082 PCB-1260 ND 0.33 07/19/13 ΑW mg/kg PCB-1262 ND 0.33 mg/kg 07/19/13 ΑW 3540C/8082 ND 0.33 07/19/13 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP 92 % 07/19/13 AW 30 - 150 % % TCMX 90 % 07/19/13 30 - 150 %

Page 1 of 8 Ver 3

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-29 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 23, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99568

Page 2 of 8 Ver 3



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 23, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 10:55 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

**Laboratory Data** 

SDG ID: GBD99551

Phoenix ID: BD99571

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-32 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 97 % 07/15/13 E160.3 JL Extraction for PCB Completed 07/18/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/19/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/19/13 AW 3540C/8082 3540C/8082 ND 07/19/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/19/13 ΑW 3540C/8082 0.34 mg/kg 0.34 07/19/13 AW 3540C/8082 PCB-1248 1.4 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/19/13 AW 3540C/8082 PCB-1260 ND 0.34 07/19/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/19/13 ΑW 3540C/8082 ND 07/19/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 89 % 07/19/13 AW 30 - 150 % % TCMX 92 % 07/19/13 30 - 150 %

Page 3 of 8 Ver 3

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-32 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 23, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99571

Page 4 of 8 Ver 3



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 23, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 11:00 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

Laboratory Data

SDG ID: GBD99551

Phoenix ID: BD99572

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-33 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 97 % 07/15/13 E160.3 JL Extraction for PCB Completed 07/18/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/19/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/19/13 AW 3540C/8082 3540C/8082 ND 07/19/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/19/13 ΑW 3540C/8082 0.34 mg/kg ND 0.34 07/19/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/19/13 AW 3540C/8082 PCB-1260 ND 0.34 07/19/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/19/13 ΑW 3540C/8082 ND 07/19/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 99 % 07/19/13 AW 30 - 150 % % TCMX 86 % 07/19/13 30 - 150 %

Page 5 of 8 Ver 3

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-33 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 23, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99572

Page 6 of 8 Ver 3



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 23, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 12:00 Location Code: **GZA-PCB** Received by: LB 07/01/13 16:15 Analyzed by: see "By" below

Rush Request: Standard

**Laboratory Data** 

SDG ID: GBD99551

Phoenix ID: BD99573

Project ID: COMMERCIAL FOUNDRY COMPANIES

4336983

Client ID: A-14-F-34 (0-0.5)

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 97 % 07/15/13 E160.3 JL Extraction for PCB Completed 07/18/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/19/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/19/13 AW 3540C/8082 3540C/8082 ND 07/19/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/19/13 ΑW 3540C/8082 0.34 mg/kg 0.34 07/19/13 AW 3540C/8082 PCB-1248 1.9 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/19/13 AW 3540C/8082 PCB-1260 ND 0.34 07/19/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/19/13 ΑW 3540C/8082 ND 07/19/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 92 % 07/19/13 AW 30 - 150 % % TCMX 93 % 07/19/13 30 - 150 %

> Page 7 of 8 Ver 3

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-34 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 23, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99573

Page 8 of 8 Ver 3



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

July 23, 2013

## QA/QC Data

SDG I.D.: GBD99551

July 23, 2013		<u> </u>	<del></del>			300	ייט.ו פ	GDD99	7551
Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 238273, QC Sa	umple No: PD00024 (DI	D00554 DD00557 DD	00562 5	D00E4E	S DD0	2566)			
Polychlorinated Biphen	•	D99000, BD99007, BD	99302, 6	0099000	), DD9 <sup>,</sup>	7300)			
PCB-1016	ND	90	91	1.1				40 - 140	30
PCB-1010 PCB-1221	ND	90	91	1.1				40 - 140	30
PCB-1232	ND							40 - 140	30 30
PCB-1232 PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	88	88	0.0				40 - 140	30
PCB-1262	ND	00	00	0.0				40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	85	85	86	1.2				30 - 150	30
% TCMX (Surrogate Rec)	86	90	91	1.1				30 - 150	30
QA/QC Batch 239784, QC Sa					R BD9	9569 BI	D99574		
Polychlorinated Biphen	•	57,001,1557,002,155	,,,,,,,	,,,,,,,,,	,, 00,	,00,,0	57707	,	
PCB-1016	ND	77	75	2.6	79	86	8.5	40 - 140	30
PCB-1221	ND		, ,	2.0	• •	00	0.0	40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	78	81	3.8	85	83	2.4	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	84	86	87	1.2	85	86	1.2	30 - 150	30
% TCMX (Surrogate Rec)	81	86	84	2.4	88	88	0.0	30 - 150	30
QA/QC Batch 238490, QC Sa	imple No: BD99560 (Bl	D99560, BD99570)							
Polychlorinated Biphen		,							
PCB-1016	ND	89	85	4.6	93	89	4.4	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	96	91	5.3	99	97	2.0	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	94	94	90	4.3	86	87	1.2	30 - 150	30
% TCMX (Surrogate Rec)	90	100	97	3.0	94	96	2.1	30 - 150	30
QA/QC Batch 241301, QC Sa	mple No: BD99568 (Bl	D99568, BD99571, BD	99572, E	3D99573	3)				
Polychlorinated Biphen	<u>ıyls - Solid</u>								
PCB-1016	ND	85	98	14.2	104	97	7.0	40 - 140	30

## QA/QC Data

SDG I.D.: GBD99551

	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Parameter	DIdIIK	70	70	RPD	70	70	KPD	LIIIIIIS	LIIIIIIS
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	95	97	2.1	104	104	0.0	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	106	103	106	2.9	105	106	0.9	30 - 150	30
% TCMX (Surrogate Rec)	94	87	101	14.9	96	84	13.3	30 - 150	30
QA/QC Batch 238311, Q0	C Sample No: BD99773 (BD99567)								
Polychlorinated Bip	<u>henyls - Solid</u>								
PCB-1016	ND	85	78	8.6	89			40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	87	85	2.3	90			40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	87	84	86	2.4	88			30 - 150	30
% TCMX (Surrogate Rec)	73	85	75	12.5	83			30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis Shiller, Laboratory Director

July 23, 2013

Tuesday, July 23, 2013

**Sample Criteria Exceedences Report** 

**GBD99551 - GZA-PCB** 

State: CT

Requested Criteria: None

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

## Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Labor	ratory Name: Ph	oenix Environi	mental Lab	s, Inc. CI	ient:	G	ZA-PCB		
Projec	ct Location: Co	OMMERCIAL F	OUNDRY	COM Pr	oject N	lumber:			
Labor	ratory Sample ID	BD99558 BD99565	BD99559,	BD99567 BD99567	, BD99 , BD99	561, BD9956	55, BD99556, 62, BD99563, 69, BD99570,	BD9956	4,
Samp	oling Date(s): 6/3	30/2013							
RCP N	Methods Used:								
131	11/1312	<b>7000</b>	7196	7470 <i>/</i>	7471	8081	☐ EPH		TO15
<b>✓</b> 808	32 🗌 8151	8260	8270	ETPH	4	9010/9012	☐ VPH		
s	For each analytical n specified QA/QC per any criteria falling ou specific Reasonable	formance criteria tside of acceptab	followed, inc le guidelines	cluding the , as specifie	requiren	nent to explain		□ No	
1a. V	Were the method sp	ecified preservati	on and holdi	ng time req	uiremen	ts met?	✓ Yes	□ No	
	EPH and VPH methorisignificant modification						□ Yes	□ No	<b>☑</b> NA
	Were all samples red described on the ass					with that	✓ Yes	□ No	
3. V	Were samples recei	ed at an appropr	riate tempera	ture (< 6 D	egrees (	C)?	✓ Yes	□No	□NA
	Were all QA/QC per documents achieved		specified in t	he Reason	able Cor	nfidence Proto	col Yes	□ No	
5a. V	Were reporting limits	specified or refe	renced on th	e chain-of-	custody	)	✓ Yes	□ No	
5b. V	Were these reporting	g limits met?					✓ Yes	$\square$ No	□NA
r	For each analytical n reported for all const the Reasonable Con	ituents identified	in the metho	d-specific a				□ No	□NA
7. <i>P</i>	Are project-specific r	matrix spikes and	laboratory d	uplicates in	cluded in	n the data set?	✓ Yes	□ No	□NA
ı	For all questions to v provided in an attach requirements for "Re	ed narrative. If the	ne answer to c						
and b	undersigned, at belief and based ained in this ana	upon my pers	sonal inqui	iry of tho	se resp	onsible for	providing th		
	orized	2.4			Printe		esday, July 2 eg Lawrence	•	
Signa	ature:	1 and an					sistant Lab D		







## **RCP Certification Report**

July 23, 2013

**SDG I.D.: GBD99551** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** <u>Au-ecd1 07/03/13-1 (BD99557, BD99566, BD99567)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/3/2013

**Instrument:** Au-ecd1 07/08/13-1 (BD99556)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/8/2013

**Instrument:** Au-ecd1 07/11/13-1 (BD99551, BD99552, BD99553, BD99558, BD99569, BD99574)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/11/2013

**Instrument:** Au-ecd24 07/02/13-1 (BD99562, BD99565)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none



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## **RCP Certification Report**

July 23, 2013

**SDG I.D.: GBD99551** 

Printed Name Adam Werner Position: Chemist Date: 7/2/2013

**Instrument:** Au-ecd5 07/05/13-1 (BD99556)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/5/2013

**Instrument:** Au-ecd5 07/11/13-1 (BD99552)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/11/2013

**Instrument:** Au-ecd6 07/05/13-1 (BD99560, BD99570)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/5/2013

**Instrument:** Au-ecd6 07/19/13-1 (BD99568, BD99571, BD99572, BD99573)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none



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# nelac E

## **RCP Certification Report**

July 23, 2013

**SDG I.D.: GBD99551** 

**Printed Name** Adam Werner **Position:** Chemist **Date:** 7/19/2013

**Instrument:** Au-ecd7 07/03/13-1 (BD99560, BD99570)

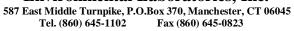
8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/3/2013







# **RCP Certification Report**

July 23, 2013

SDG I.D.: GBD99551

QC (Site Specific) Sample No: BD99552, QA/QC Batch: 239784
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Sample No: BD99560, QA/QC Batch: 238490
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Sample No: BD99568, QA/QC Batch: 241301
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.  QC (Batch Specific)
All LCS recoveries were within 40 - 140 with the following exceptions: None.



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# **RCP Certification Report**

July 23, 2013

**SDG I.D.: GBD99551** 

All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Sample No: BD99773, QA/QC Batch: 238311
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

## **Temperature Narration**

The samples in this delivery group were received at  $6^{\circ}$ C. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

Yes C	Temp or 9  Data Delivery:  Tex #:  Remail: Jan. 6. half on 6 92 a. com.	Project P.O: 4269.87 Phone #: 860-858-3135 Fax #: 860-652-8590	1400 (1) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2		\$ 61.40 60 10 10 10 10 10 10 10 10 10 10 10 10 10										<b>√</b>	MA Dartification	GW-1	GW-2 GW-3 GW-3	S-1 Data Package	S-3	Other
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	CHAIN OF CUSTODY RECORD 587 East Middle Turnpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-082 Client Services (860) 645-8726	Project: Common Report to: Jim Invoice to: Jim	Analysis Request	7486	(2)	4	7		->	*		PUACE ON	2		<u> </u>	7	51/2	51011 511116	Turnaround:		X Standard  Other *SURCHARGE APPLIES
	- TOTO M.	Brook DANG, SCHE 402	n - Identification Date: 6/34/13	Surface Water <b>WW=</b> Waste Water <b>W=</b> Wipe <b>O=</b> Other	Sample Date Time Matrix Sampled Sampled	\$1/04/9 O	OROLL		J1-01			766			2011	W	Charles Archan	The Carlo	souther extremo-		MIP
	PHOENIX Environmental Laboratories, Inc.	Customer: GZA Address: 655 Winding 8 GISHONENT, CT	Signature Client Sample - Information - Identification	Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soll/Solid W=Wipe O=Other	PHOENIX USE ONLY  Customer Sample SAMPLE # Identification	9955/ A-14-F-12 (0-0.5)	9055 A-14-F-14 (0-05)	9954 A-4-F-15 (00.5)	9455 A-14-F-16 (005)	9956 A-M-F-10-0.5)	4	7 2	(200) L-1-M-M 09282	1447	99561 A-14-F-33(0-0,0)	A D	Carty / Macon	The delivery the second	of ments Special Requirements or Regulations: PCB のへうりから 代々げん トペーペース		Frample nut peuil fings

	CHAIN OF CUSTODY RECORD	:	Cooler: DK Coolant: IPK	Cooler: Yes □ No □ : IPK □ ICE □ N □ °C Pg A of 3
PHOENIX SE SE EMBER SE EMBER SE EMBER SE	587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823	Data Data	and halle	S 50 Com
Environmental Laboratories, Inc.	Cilent Services (660) 643-6726	₹	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-/5
12 0 12 0 (C) 1 330	'	Foundly Companies	ö	43369.83
Grook Mix, 3	Invoice to: Time NAMA		Fax #: 860-	860-622-8390
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$\mathbf{a}$	>			
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99577 A-14-F-ST (0-0-5) V V 10-10	\ \ \ \	<i>→</i>		
A Accepted by:	Time:	Direct Exposure   CT   MA	MA D Certification	Data Format
The Day not the fact with the	]	GW Protection	] GW-1	PDF
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confinences, special Regularies or Regulations:  1. R.B. c. L.J.S. C. P. C. A. C. N. C. N. J. C. J. C. L. L. P. X. T. C. T. O. N. C. L. L. B. S. C. L. D. C. L. C. D. C. L. C. L. C. L. C. L. C.	Turnaround:	<u></u>	S-1 S-2	Data Package Tier II Checklist
J. Detection limit os my/1/5		I/C DEC	S-3 MWRA eSMART	Full Data Package*  Phoenix Std Report
		State where samples were collected:	C	
	SURCHARGE APPLIES			

TO STATE OF THE PROPERTY OF TH	CHAIN OF CUSTODY RECORD		Cooler: Yes Cooler: Tes Tempore Cooler: Tempor	□
Environmental Laboratories, Inc.	587 East Middle Turnpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-08; Client Services (860) 645-8726	23	Data Delivery:	
Customer: GZA Address: 655 Winding Brodic Drik, Scit 402 Gistonburg, CT	Project: Gnan. Report to: Jim Invoice to: Jim	Connected Fordey Companies Jim Hotton	Project P.O: 436/87 Phone #: 860-858-373	
Sampler's Cheff Sample - Information - Identification Signature Chaffs	Analysis Request		/ / 4	4 4
Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water  SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	3. January		1005 1005 1000 100 100 100 100 100 100 1	410
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A-14-F-16 (0.05)	->			
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	PLACE ON PE	Hold		
	->			
99560 A-IN-F-21 (005) 1250	<b>9</b>			
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the devite the variable	11/13	SW Protection	GW-2 GW-3 GW-3 GW-3 GW-3	
Commental Special Requirements or Regulations:	Turnaround:	GB Mobility Residential DEC		dist
Detection I will 0.5 mg/kg	☐ 2 Days*☐ 3 Days*☐ Standard	∥ VC DEC ☐ Other	S-3 Full Data Package*  MWRA eSMART Phoenix Std Report  Other Other	ickage* I Report
Frample nut periodemorp	Connection of the control of the con	State where samples were collected:	رح ا	APPLIES

#### Linda - Phoenixlabs

From: Benjamin Graham [Benjamin.Graham@gza.com]

Sent: Monday, July 15, 2013 3:35 PM

To: Linda - Phoenixlabs

Subject: RE: additional analysis-CFC 43369.83

Linda, here are the samples to run with Phoenix IDs for PCBs by manual soxhlet extraction. Please let me know if you need anything else. Standard TAT. Thanks-

Sample ID	Phoenix ID
A14-F-29 (0-0.5)	99568
A14-F-32 (0-0.5)	99571
A14-F-33 (0-0.5)	99572
A14-F-34 (0-0.5)	99573
A14-F-12 (0.5-1)	99578
A14-F-35 (0.5-1.0)	99600
A14-S-22 (0-0.25)	00861 🗸
A14-S-23 (0-0.25)	00868

From: Linda - Phoenixlabs [mailto:linda@phoenixlabs.com]

Sent: Monday, July 15, 2013 3:20 PM

To: Benjamin Graham

Subject: RE: additional analysis-CFC 43369.83

Hi Ron

We need the Phoenix ID's numbers please.

Linda

-Linda Chapman

Client Services Representative

Phoenix Environmental Laboratories

587 East Middle Turnpike

Manchester, CT 06040

Ph: 1-860-645-1102

This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law.

From: Benjamin Graham [mailto:Benjamin.Graham@gza.com]

Sent: Monday, July 15, 2013 3:17 PM

To: Linda - Phoenixlabs

Subject: RE: additional analysis-CFC 43369.83



**Tuesday, July 09, 2013** 

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY COMPANIES

Sample ID#s: BD99575 - BD99576

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 09, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 11:40 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

Laboratory Data

SDG ID: GBD99575

Phoenix ID: BD99575

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-36 (0-0.5)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 96 % 07/01/13 E160.3 JL Extraction for PCB PP/HB/K SW3540C Completed 07/01/13 PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/03/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/03/13 AW 3540C/8082 3540C/8082 ND 07/03/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/03/13 ΑW 3540C/8082 0.34 mg/kg 0.34 07/03/13 AW 3540C/8082 PCB-1248 1.3 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/03/13 AW 3540C/8082 PCB-1260 ND 0.34 07/03/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/03/13 ΑW 3540C/8082 ND 07/03/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 100 % 07/03/13 AW 30 - 150 % % TCMX 100 % 07/03/13 30 - 150 %

Page 1 of 4 Ver 1

Client ID: A-14-F-36 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 09, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD99575

Page 2 of 4 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 09, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 06/30/13 11:40 Received by: Location Code: **GZA-PCB** LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GBD99575

Phoenix ID: BD99576

COMMERCIAL FOUNDRY COMPANIES Project ID:

4336983

Client ID: A-14-F-37 (0-0.5)

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	95		%	07/01/13	JL	E160.3
Extraction for PCB	Completed			07/01/13	PP/HB/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	1.7	mg/kg	07/03/13	AW	3540C/8082
PCB-1221	ND	1.7	mg/kg	07/03/13	AW	3540C/8082
PCB-1232	ND	1.7	mg/kg	07/03/13	AW	3540C/8082
PCB-1242	ND	1.7	mg/kg	07/03/13	AW	3540C/8082
PCB-1248	5.2	1.7	mg/kg	07/03/13	AW	3540C/8082
PCB-1254	ND	1.7	mg/kg	07/03/13	AW	3540C/8082
PCB-1260	ND	1.7	mg/kg	07/03/13	AW	3540C/8082
PCB-1262	ND	1.7	mg/kg	07/03/13	AW	3540C/8082
PCB-1268	ND	1.7	mg/kg	07/03/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/03/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/03/13	AW	30 - 150 %

Ver 1 Page 3 of 4

Client ID: A-14-F-37 (0-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 09, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BD99576

Page 4 of 4 Ver 1



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# QA/QC Report

July 09, 2013

### QA/QC Data

<u>Data</u> SDG I.D.: GBD99575

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 238311, QC	Sample No: BD99773 (BD99	9575, BD99576)							
Polychlorinated Biph	enyls - Solid								
PCB-1016	ND	85	78	8.6	89			40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	87	85	2.3	90			40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	87	84	86	2.4	88			30 - 150	30
% TCMX (Surrogate Rec)	73	85	75	12.5	83			30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

July 09, 2013

Tuesday, July 09, 2013

**Sample Criteria Exceedences Report** 

**GBD99575 - GZA-PCB** 

State: CT

Requested Criteria: None

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

### Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Labo	oratory Name: Phoenix Environmental Labs, Inc. Client: GZA-PCB							
Proje	ect Location:	COMMERCIAL	FOUNDRY (	COM Project	Number:			
Labo	Laboratory Sample ID(s): BD99575, BD99576, BD99577							
Sampling Date(s): 6/30/2013								
RCP Methods Used:								
13	311/1312	7000	<b>7196</b>	7470/7471	8081	☐ EPH		TO15
<b>✓</b> 80	8082							
1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?							
1a.	Were the method	d specified preserva	tion and holdir	ng time requireme	ents met?	✓ Yes	$\square$ No	
1b.							<b>✓</b> NA	
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?  ✓ Yes □ No							
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?				✓ Yes	□No	□NA	
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?   ✓ Yes □ No							
5a.	Were reporting limits specified or referenced on the chain-of-custody?  ✓ Yes □ No							
5b.	. Were these reporting limits met?   ✓ Yes □ No □ NA						□NA	
6.	For each analytical method referenced in this laboratory report package, were results						□NA	
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?				in the data set?	□ Yes	<b>✓</b> No	□NA
Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".								
and	I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.							
	horized	9. K		Drint	Date: Tueso		-	
Sig	Signature: Printed Name: Greg Lawrence							



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# **RCP Certification Report**

July 09, 2013

**SDG I.D.: GBD99575** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 07/03/13-1 (BD99575, BD99576)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/3/2013

#### QC (Batch Specific)

----- Sample No: BD99773, QA/QC Batch: 238311 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**

The samples were received at 6C with cooling initiated. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

Cooler: Yes No \* SURCHARGE APPLIES Phoenix Std Report ☐ Tier II Checklist

 Full Data Package\* ~ ა **~** ნ გე ა 25/5-828-038 860-622-8590 K Email: Jeney. Lother C 920. Com Data Package Project P.O. 43369, 8 Excel
PDF
GIS/Key Data Format EQUIS Other MA MCP Certification MWRA eSMART Phone #: Fax #: ☐ GW-1 ☐ GW-2 ☐ GW-3 S-1 Other Data Delivery: State where samples were collected: Residential DEC SW Protection GA Mobility GW Protection Commercial Fonday Compand GB Mobility CT RCP Cert ☐ I/C DEC Other Direct Exposure (Residential) 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 CHAIN OF CUSTODY RECORD NAHO! エシセ Other M<sub>B</sub> □ ON FOLD الم أح H 2 Days\*
3 Days\*

R Standard
Other
SurcHARGE APPLIES 0 1750 Time: PLACE Invoice to: Report to: Analysis Request Project: Turnaround: ☐ 1 Day X 1/PCB analysis require manual soutlet extraction Sampled Time Matrix Code:

DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other Gentle Winding Brook Drie, Josh 402 Gentles bury, CT Date Sampled Z/05/9 5/ps/9 0/25/9 Client Sample - Information - Identification Sample Matrix 0 0  $|\mathcal{O}|$ ints or Regulations: Environmental Laboratories, Inc. 2. Octobion limit ous mylly epted by: A-14-F-36(0-05) 1-14-F-57(0-0,5 を子下るのの Customer Sample Identification Gata-buy, hotely we GZA PHOENIX USE ONLY 99575 Relinquished by Customer: Address: Sampler's Signature



Wednesday, July 31, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY COMPANIES

Sample ID#s: BD99597, BD99599

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 31, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 15:25 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336982

<u>Laboratory Data</u>

SDG ID: GBD99578

Phoenix ID: BD99597

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-32 (0.5-1)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 94 % 07/22/13 EG E160.3 Extraction for PCB Completed 07/26/13 NB/HB SW3540C PCB (Soxhlet) PCB-1016 ND 0.35 mg/kg 07/29/13 ΑW 3540C/8082 PCB-1221 ND 0.35 mg/kg 07/29/13 AW 3540C/8082 ND 07/29/13 ΑW 3540C/8082 PCB-1232 0.35 mg/kg ND 0.35 07/29/13 ΑW 3540C/8082 PCB-1242 mg/kg 0.43 0.35 07/29/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.35 mg/kg 07/29/13 AW 3540C/8082 PCB-1260 ND 0.35 07/29/13 ΑW mg/kg PCB-1262 ND 0.35 mg/kg 07/29/13 ΑW 3540C/8082 ND 07/29/13 ΑW 3540C/8082 PCB-1268 0.35 mg/kg **QA/QC Surrogates** % DCBP 89 % 07/29/13 AW 30 - 150 % % TCMX 94 % 07/29/13 30 - 150 %

Page 1 of 4 Ver 2

Client ID: A-14-F-32 (0.5-1)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 31, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99597

Page 2 of 4 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 31, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 15:35 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336982

Laboratory Data

SDG ID: GBD99578

Phoenix ID: BD99599

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-34 (0.5-1)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 97 % 07/22/13 EG E160.3 Extraction for PCB Completed 07/26/13 NB/HB SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/29/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/29/13 AW 3540C/8082 ND 07/29/13 ΑW 3540C/8082 PCB-1232 0.34 mg/kg ND 07/29/13 ΑW 3540C/8082 PCB-1242 0.34 mg/kg ND 0.34 07/29/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/29/13 AW 3540C/8082 PCB-1260 ND 0.34 07/29/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/29/13 ΑW 3540C/8082 ND 07/29/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 111 % 07/29/13 AW 30 - 150 % % TCMX 93 % 07/29/13 30 - 150 %

Page 3 of 4 Ver 2

Client ID: A-14-F-34 (0.5-1)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 31, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99599

Page 4 of 4 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

July 31, 2013

### QA/QC Data

SDG I.D.: GBD99578

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Sample No: BD99552 (BD99	583, BD99584, BD9	9601)						
Polychlorinated Biph									
PCB-1016	ND	77	75	2.6	79	86	8.5	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	78	81	3.8	85	83	2.4	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND	0.4	07	4.0	0.5	0.4	4.0	40 - 140	30
% DCBP (Surrogate Rec)	84	86	87	1.2	85	86	1.2	30 - 150	30
% TCMX (Surrogate Rec)	81	86	84	2.4	88	88	0.0	30 - 150	30
QA/QC Batch 241301, QC	Sample No: BD99568 (BD99	578, BD99600)							
Polychlorinated Biph	<u>enyls - Solid</u>								
PCB-1016	ND	85	98	14.2	104	97	7.0	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	95	97	2.1	104	104	0.0	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	106	103	106	2.9	105	106	0.9	30 - 150	30
% TCMX (Surrogate Rec)	94	87	101	14.9	96	84	13.3	30 - 150	30
QA/QC Batch 242672, QC	Sample No: BF11399 (BD99	597, BD99599)							
Polychlorinated Biph	Polychlorinated Biphenyls - Solid								
PCB-1016	ND ND	84			52	83	45.9	40 - 140	30 r
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	90			93	94	1.1	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	95	95			94	96	2.1	30 - 150	30
% TCMX (Surrogate Rec)	85	86			36	86	82.0	30 - 150	30 r

r = This parameter is outside laboratory rpd specified recovery limits.

### QA/QC Data

SDG I.D.: GBD99578

% RPD % LCS LCSD LCS MS MSD MS Rec Blank % RPD % % RPD Limits Limits % Parameter

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

July 31, 2013

Wednesday, July 31, 2013

# **Sample Criteria Exceedences Report**

**GBD99578 - GZA-PCB** 

State: CT

Requested Criteria: None

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

### Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY COM Project Number: Laboratory Sample ID(s): BD99578, BD99579, BD99580, BD99581, BD99582, BD99583, BD99584, BD99585, BD99586, BD99587, BD99588, BD99589, BD99590, BD99591, BD99592, BD99593, BD99594, BD99595, BD99596, BD99597, BD99598, BD99599, BD99600, BD99601 **Sampling Date(s):** 6/30/2013 **RCP Methods Used:** ☐ 1311/1312
☐ 6010 7000 7196 7470/7471 8081 ☐ EPH TO15 **✓** 8082 8270 9010/9012 □ VPH 8151 8260 ETPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) 2. Were all samples received by the laboratory in a condition consistent with that ✓ Yes No. described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No □ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ✓ Yes No. Were these reporting limits met? 5b. ✓ Yes □ No □ NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes No □ NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ☐ Yes 🗹 No □ NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Wednesday, July 31, 2013 Authorized inakal Printed Name: Rashmi Makol Signature: Position: Project Manager



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

July 31, 2013

**SDG I.D.: GBD99578** 

Sample BD99597 was analyzed past hold time for Percent Solid (E160.3).

Sample BD99597 was analyzed past hold time for Extraction for PCB (SW3540C).

Sample BD99599 was analyzed past hold time for Percent Solid (E160.3).

Sample BD99599 was analyzed past hold time for Extraction for PCB (SW3540C).

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 07/11/13-1 (BD99583, BD99601)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/11/2013

**Instrument:** Au-ecd1 07/12/13-1 (BD99584)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/12/2013

**Instrument:** Au-ecd1 07/15/13-1 (BD99584)

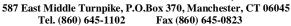
8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/15/2013







## **RCP Certification Report**

July 31, 2013

**SDG I.D.: GBD99578** 

**Instrument:** Au-ecd6 07/19/13-1 (BD99578, BD99600)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/19/2013

**Instrument:** Au-ecd6 07/29/13-1 (BD99597, BD99599)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/29/2013

#### QC (Batch Specific)

All LCS recoveries were within 40 - 140 with the following exceptions: None.

#### **Temperature Narration**



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

July 31, 2013

**SDG I.D.: GBD99578** 

The samples were received at 6.0C with cooling initiated. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

Column IVE | No | \* SURCHARGE APPLIES Phoenix Std Report Full Data Package\* Data Package
Tier II Checklist Project P.O: 4376/8) Phone #: 860 858 3735 K Email Jert. Latto P 52 c. CON 068- 652-8550 ŏ Excel
R PDF
GIS/Key Data Format ☐ EQuIS °C Pg MA MCP Certification MWRA eSMART Fax #: U ☐ GW-3 ☐ GW-2 ☐ GW-1 S-1 % % □□ Data Delivery: State where samples were collected: Residential DEC CI X RCP Cert ☐ GW Protection SW Protection GA Mobility GB Mobility ☐ I/C DEC Connected Foully Company ☐ Direct Exposure 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 **CHAIN OF CUSTODY RECORD** (Residential) Other Fto 1.4 HAP % □ Ę 054 \* SURCHARGE APPLIES Time: Invoice to: Report to: 3 Days\*
Standard
Other Analysis Request Project: Turnaround: 2 Days 四/次/9 Sampled JYY1 735H 045/ 1500 1430 1410 1605 1105 ochi 5 7 1-1 Matrix Code:

DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other perments, Special Requirements or Regulations: // PCB anclysis [fq Jir manue] Spxh et extretion 5//20/J3 COL 755 Date Sampled 1/02/9 Client Sample - Information - Identification 655 Winding Brook ONL Sample Matrix 0 Environmental Laboratories, Inc. Accepted by: 2. Octobrow limits OS mg/lg 4 the order 1435 (250) b A-14-F23 (05-1 A-14-F15 (05-1) A-14-F16 (0.5-1) 1-5-10/81-7-41-1 1-50) BJ-H-B A-14- F- 12 (05-1) (150) 217-H-A A-14-F17 (0.5-1 A-14-F-20 (05-1 1-50) (C-1-11-17 F 25/04) A-14-F14(0,5-1) Customer Sample Identification Glastoching, A-14 F-27 3 PHOENIX USE ONLY Relinguished by Customer: without Address: プランプ Sampler's Signature 22 <u>a</u>

es □ № □ ICE □ N □	
Cooler: Ye	
the table	
7)	I

	CHAIN OF CUSTODY RECORD		Тетр	°C Pg 🕽 of 🕽
PHOFINIX SET 1 Email: E	587 East Middle Turnpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Data Delivery:    Fax #	<u>VerV:</u> #	
Customer: (524)	Project: Commercial Education Comment	Comes 4	Project P.O. 4	47561.87
9	' ö	1 2 2		250-858-2126
Glandahuy, CT				860 - (52) - 8590
Client Sample - Information - Identification				
ate: 6/30/13	Analysis Request		Cit.	14000 1400 01, 1400 0
Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water  SE=Sediment SL=Sludge S=Soil/Soild W=Wipe 0=Other	7.20.20		Ole He Tolle	
SAMPLE # Identification Matrix Sampled Sampled		16 16 16 16 16 16 16 16 16 16 16 16 16 1	ON THE OF	Believes of the state of the st
0191 21/0c/9 0 (+so).	X PLACE ON HOLD	X		\
1 (				-
0151 1 (1.50) (F-14-F-96)				
151   1515   1500   St. 7- H-F 56569				
79557 N-14-F30 (05-1) 1530				
-14-F-30(0,5-j)				
1596				
49597 A-14-F.22 (Os-1) 1525				
9959K A-14-E37 (05-1)				
99599 A-M-F34 (Os.1) 1535				
99600 A-14-F3 (05-1) 1, 155C				
99601 A-H-For (0.5-1) V V 1635 N		<b>→</b>		
Relinguished by: Acceded by:	Time: RI		MA	Data Format
Color 1 Colors of Colors	(Residential)	RCP Cert		Exce
Private 1 0 Changlant M	7/1/13 10'8 a		GW-2	GIS/Key
	#1/13 1/0/5   other		GW-3	EQUIS Other
exilet extration			S-1	Data Package
	1 Day*	Residential DEC	2-S 2-3	Tier II Checklist

Data Package
Tier II Checklist
Full Data Package\*
Phoenix Std Report
Other

| S-2 | S-3 | MWRA eSMART

GB Mobility
Residential DEC
1/C DEC
Other

2. Detection limit our my/kg

\* SURCHARGE APPLIES

State where samples were collected:

#### Linda - Phoenixlabs

From: Anthony Trani [Anthony.Trani@gza.com]

Sent: Wednesday, July 10, 2013 10:35 AM

To: 'linda@phoenixlabs.com'

Cc: James Hutton

Subject: Commercial Foundry Samples to run

Linda,

Can we please have the following samples taken off hold and run for PCB using manual soxhlet. Standard TOT. The job is Commercial Foundry (43369.83)

#### **Concrete Floor Samples**

Phoenix ID: 99583
Phoenix ID: 99584
Phoenix ID: 99601
Phoenix ID: 99551
Phoenix ID: 99552
Phoenix ID: 99553
Phoenix ID: 99558
Phoenix ID: 99569
Phoenix ID: 99574

Soil Samples	
GZA ID: A-14-S24 (0-0.25)	Phoenix ID: 00875 6-BF 00861
GZA ID: Ext-6 (0.25-0.5)	Phoenix ID: 00904
GZA ID: Ext-9 (0.75-1)	Phoenix ID: 00923
GZA ID: Ext-10 (1.75-2)	Phoenix ID: 00930
GZA ID: Ext-10(2.75-3)	Phoenix ID: 00931
GZA ID: EXT-103	Phoenix ID: 99779, I sent an email yesterday requesting this but did
not get a confirmation from you	so I am including it again.

Can we have the following samples taken off hold and run for ETPH. Standard TOT.

#### Soil Samples

Phoenix ID: 99799 6BD 9979 1 GZA ID: A-1-S-8 (1-2)

GZA ID: A-3-S-18 Phoenix ID: 01299 Note-This sample name should be change as 6月2013年分

follows: A-3-S-18 (2-4)

#### **Anthony Trani**

#### Scientist

GZA GeoEnvironmental, Inc. 655 Winding Brook Drive, Suite 402 Glastonbury, Connecticut 06033 (860) 858-3121 (direct) (860) 990-5404 (cell) (860) 652-8590 (fax) anthony.trani@gza.com

#### Linda - Phoenixlabs

From: Anthony Trani [Anthony.Trani@gza.com] Sent: Wednesday, July 10, 2013 10:35 AM

To: 'linda@phoenixlabs.com'

Cc: James Hutton

Subject: Commercial Foundry Samples to run

Linda,

Can we please have the following samples taken off hold and run for PCB using manual soxhlet. Standard TOT. The job is Commercial Foundry (43369.83)

#### **Concrete Floor Samples**

GZA ID: A-14-F-17 (0.5-1)	Phoenix ID: 99583
GZA ID: A-14-F-18 (0.5-1)	Phoenix ID: 99584
GZA ID: A-14-F-36 (0.5-1)	Phoenix ID: 99601
GZA ID: A-14-F-12 (0-0.5)	Phoenix ID: 99551
GZA ID: A-14-F-13 (0-0.5)	Phoenix ID: 99552
GZA ID: A-14-F-14 (0-0.5)	Phoenix ID: 99553
GZA ID: A-14-F-19 (0-0.5)	Phoenix ID: 99558
GZA ID: A-14-F-30 (0-0.5)	Phoenix ID: 99569
GZA ID: A-14-F-35 (0-0.5)	Phoenix ID: 99574

#### Soil Samples

<u>son samples</u>		15 45 400 x 1
GZA ID: A-14-S24 (0-0.25)	Phoenix ID: 00875	6-BF 00861
GZA ID: Ext-6 (0.25-0.5)	Phoenix ID: 00904	
GZA ID: Ext-9 (0.75-1)	Phoenix ID: 00923	
GZA ID: Ext-10 (1.75-2)	Phoenix ID: 00930	
GZA ID: Ext-10(2.75-3)	Phoenix ID: 00931	
GZA ID: EXT-103	Phoenix ID: 99779, I se	nt an email yesterday requesting this but did
not get a confirmation from you		

Can we have the following samples taken off hold and run for ETPH. Standard TOT.

#### Soil Samples

6BD99791 GZA ID: A-1-S-8 (1-2) Phoenix ID: 99799

GZA ID: A-3-S-18 Phoenix ID: 01299 Note-This sample name should be change as  $\ensuremath{\mathit{GBD0199}}\xspace \ensuremath{\mathcal{S}}$ follows: A-3-S-18 (2-4)

#### Anthony Trani Scientist

GZA GeoEnvironmental, Inc. 655 Winding Brook Drive, Suite 402 Glastonbury, Connecticut 06033 (860) 858-3121 (direct) (860) 990-5404 (cell) (860) 652-8590 (fax) anthony.trani@gza.com

#### Loreen - Phoenixlabs

From: Anthony Trani [Anthony.Trani@gza.com]

**Sent:** Monday, July 22, 2013 2:58 PM

To: Loreen - Phoenixlabs

Subject: RE: Results

Thanks,

Can you also take the following samples off hold and have them analyzed for PCBs via Soxhlet.

GZA ID: A-14-F-32 Phoenix ID: 99597 GZA ID: A-14-F-34 Phoenix ID: 99599

Anthony

----Original Message----

From: Loreen - Phoenixlabs [mailto:loreen@phoenixlabs.com]

Sent: Monday, July 22, 2013 2:42 PM

To: Anthony Trani Subject: RE: Results

Anthony-

GZA ID: A14-F-12 (0.5-1) Phoenix ID: 99578
GZA ID: A14-F-35 (0.5-1.0) Phoenix ID: 99600
GZA ID: A-14-F-17 (0.5-1) Phoenix ID: 99583
GZA ID: A-14-F-18 (0.5-1) Phoenix ID: 99584
GZA ID: A-14-F-36 (0.5-1) Phoenix ID: 99601

Were part of the email I sent earlier......the other two samples I will check on and let you know..Loreen

----Original Message-----

From: Anthony Trani [mailto:Anthony.Trani@gza.com]

Sent: Monday, July 22, 2013 2:20 PM

To: Loreen - Phoenixlabs Subject: RE: Results

Thanks Loreen,

Do you know when the results for the below samples will be available (draft is okay):

GZA ID: A14-F-12 (0.5-1) Phoenix ID: 99578
GZA ID: A14-F-35 (0.5-1.0) Phoenix ID: 99600
GZA ID: A-14-F-17 (0.5-1) Phoenix ID: 99583
GZA ID: A-14-F-18 (0.5-1) Phoenix ID: 99584
GZA ID: A-14-F-36 (0.5-1) Phoenix ID: 99601
GZA ID: A14-S-22 (0-0.25) Phoenix ID: 00861
GZA ID: A14-S-23 (0-0.25) Phoenix ID: 00868

Anthony



**Tuesday, July 23, 2013** 

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY COMPANIES

Sample ID#s: BD99578, BD99583 - BD99584, BD99600 - BD99601

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 23, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 14:35 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336982

**Laboratory Data** 

SDG ID: GBD99578

Phoenix ID: BD99578

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-12 (0.5-1)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 97 % 07/15/13 E160.3 JL Extraction for PCB Completed 07/18/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/19/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/19/13 AW 3540C/8082 ND 07/19/13 ΑW 3540C/8082 PCB-1232 0.34 mg/kg PCB-1242 ND 07/19/13 ΑW 3540C/8082 0.34 mg/kg ND 0.34 07/19/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/19/13 AW 3540C/8082 PCB-1260 ND 0.34 07/19/13 ΑW mg/kg PCB-1262 ND 0.34 mg/kg 07/19/13 ΑW 3540C/8082 ND 07/19/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 96 % 07/19/13 AW 30 - 150 % % TCMX 82 % 07/19/13 30 - 150 %

Page 1 of 10 Ver 1

Client ID: A-14-F-12 (0.5-1)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 23, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99578

Page 2 of 10 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 23, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 14:55 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336982

Laboratory Data

SDG ID: GBD99578

Phoenix ID: BD99583

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-17 (0.5-1)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 94 % 07/10/13 E160.3 JL Extraction for PCB Completed 07/10/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.35 mg/kg 07/11/13 ΑW 3540C/8082 PCB-1221 ND 0.35 mg/kg 07/11/13 AW 3540C/8082 ND 07/11/13 ΑW 3540C/8082 PCB-1232 0.35 mg/kg PCB-1242 ND 0.35 07/11/13 ΑW 3540C/8082 mg/kg 0.63 0.35 07/11/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.35 mg/kg 07/11/13 AW 3540C/8082 PCB-1260 ND 0.35 07/11/13 ΑW mg/kg PCB-1262 ND 0.35 mg/kg 07/11/13 ΑW 3540C/8082 ND 07/11/13 ΑW 3540C/8082 PCB-1268 0.35 mg/kg **QA/QC Surrogates** % DCBP 101 % 07/11/13 AW 30 - 150 % % TCMX 102 % 07/11/13 30 - 150 %

Page 3 of 10 Ver 1

Client ID: A-14-F-17 (0.5-1)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 23, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99583

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 23, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 15:00 Location Code: **GZA-PCB** Received by: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336982

Laboratory Data

SDG ID: GBD99578

Phoenix ID: BD99584

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-18 (0.5-1)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 96 % 07/10/13 E160.3 JL Extraction for PCB Completed 07/10/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 17 mg/kg 07/15/13 ΑW 3540C/8082 PCB-1221 ND 17 mg/kg 07/15/13 AW 3540C/8082 3540C/8082 ND 07/15/13 ΑW PCB-1232 17 mg/kg PCB-1242 ND 07/15/13 ΑW 3540C/8082 17 mg/kg 83 07/15/13 AW 3540C/8082 PCB-1248 17 mg/kg 3540C/8082 PCB-1254 ND 17 mg/kg 07/15/13 AW 3540C/8082 PCB-1260 ND 17 07/15/13 ΑW mg/kg PCB-1262 ND 17 mg/kg 07/15/13 AW 3540C/8082 ND 07/15/13 ΑW 3540C/8082 PCB-1268 17 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 07/15/13 AW 30 - 150 % % TCMX Diluted Out % 07/15/13 30 - 150 %

Page 5 of 10 Ver 1

Client ID: A-14-F-18 (0.5-1)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 23, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99584

Page 6 of 10 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 23, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 15:55 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

Rusii Request. Standard

P.O.#: 4336982

Laboratory Data

SDG ID: GBD99578

Phoenix ID: BD99600

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-35 (0.5-1)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 95 % 07/15/13 E160.3 JL Extraction for PCB Completed 07/18/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/19/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/19/13 AW 3540C/8082 3540C/8082 ND 07/19/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/19/13 ΑW 3540C/8082 0.34 mg/kg ND 0.34 07/19/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/19/13 AW 3540C/8082 PCB-1260 ND 0.34 07/19/13 AW mg/kg PCB-1262 ND 0.34 mg/kg 07/19/13 AW 3540C/8082 ND 07/19/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 103 % 07/19/13 AW 30 - 150 % % TCMX 83 % 07/19/13 30 - 150 %

Page 7 of 10 Ver 1

Client ID: A-14-F-35 (0.5-1)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 23, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99600

Page 8 of 10 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 23, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 06/30/13 16:25 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:15 Rush Request: Standard Analyzed by: see "By" below

4336982

**Laboratory Data** 

SDG ID: GBD99578

Phoenix ID: BD99601

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-36 (0.5-1)

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 95 % 07/10/13 E160.3 JL Extraction for PCB Completed 07/10/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.34 mg/kg 07/11/13 ΑW 3540C/8082 PCB-1221 ND 0.34 mg/kg 07/11/13 AW 3540C/8082 3540C/8082 ND 07/11/13 ΑW PCB-1232 0.34 mg/kg PCB-1242 ND 07/11/13 ΑW 3540C/8082 0.34 mg/kg ND 0.34 07/11/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.34 mg/kg 07/11/13 AW 3540C/8082 PCB-1260 ND 0.34 07/11/13 AW mg/kg PCB-1262 ND 0.34 mg/kg 07/11/13 AW 3540C/8082 ND 07/11/13 ΑW 3540C/8082 PCB-1268 0.34 mg/kg **QA/QC Surrogates** % DCBP 70 % 07/11/13 AW 30 - 150 % % TCMX 82 % 07/11/13 30 - 150 %

> Page 9 of 10 Ver 1

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-F-36 (0.5-1)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 23, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99601

Page 10 of 10 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

July 23, 2013

# QA/QC Data

SDG I.D.: GBD99578

		LCS	LCSD	LCS	MS	MSD	MS	% Rec	% RPD
Parameter	Blank	%	%	RPD	%	%	RPD	Limits	Limits
QA/QC Batch 239784, QC	Sample No: BD99552 (BD99	9583, BD99584, BD9	9601)						
Polychlorinated Biph	nenyls - Solid								
PCB-1016	ND	77	75	2.6	79	86	8.5	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	78	81	3.8	85	83	2.4	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	84	86	87	1.2	85	86	1.2	30 - 150	30
% TCMX (Surrogate Rec)	81	86	84	2.4	88	88	0.0	30 - 150	30
QA/QC Batch 241301, QC	Sample No: BD99568 (BD99	9578, BD99600)							
Polychlorinated Biph	<u>nenyls - Solid</u>								
PCB-1016	ND	85	98	14.2	104	97	7.0	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	95	97	2.1	104	104	0.0	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	106	103	106	2.9	105	106	0.9	30 - 150	30
% TCMX (Surrogate Rec)	94	87	101	14.9	96	84	13.3	30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

July 23, 2013

Tuesday, July 23, 2013

**Sample Criteria Exceedences Report** 

**GBD99578 - GZA-PCB** 

State: CT

Requested Criteria: None

	State: C1						RL	Analysis
SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units

<sup>\*\*\*</sup> No Data to Display \*\*\*

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: GZA-PCB								
Project Location: COMMERCIAL FOUNDRY COM Project Number:								
Laboratory Sample ID(s): BD99578, BD99579, BD99580, BD99581, BD99585, BD99586, BD99587, BD99588, BD99588, BD99592, BD99593, BD99594, BD99595, BD99599, BD99600, BD99601	589, BD99590, BD99591,							
Sampling Date(s): 6/30/2013								
RCP Methods Used:								
□ 1311/1312       □ 6010       □ 7000       □ 7196       □ 7470/7471       □ 8081	☐ EPH ☐ TO15							
<b>✓</b> 8082	2 DVPH							
For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP mespecific Reasonable Confidence Protocol documents?								
1a. Were the method specified preservation and holding time requirements met?	✓ Yes □ No							
1b. EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐ No ☑ NA							
2. Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	✓ Yes □ No							
3. Were samples received at an appropriate temperature (< 6 Degrees C)?	✓ Yes □ No □ NA							
Were all QA/QC performance criteria specified in the Reasonable Confidence Prot documents achieved?	ocol ✓ Yes □ No							
5a. Were reporting limits specified or referenced on the chain-of-custody?	✓ Yes □ No							
5b. Were these reporting limits met?	✓ Yes □ No □ NA							
6. For each analytical method referenced in this laboratory report package, were resurreported for all constituents identified in the method-specific analyte lists presented the Reasonable Confidence Protocol documents?								
7. Are project-specific matrix spikes and laboratory duplicates included in the data set	? ☐ Yes ☑ No ☐ NA							
Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".  I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde								
and belief and based upon my personal inquiry of those responsible for contained in this analytical report, such information is accurate and co	r providing the information							
Date: T	uesday, July 23, 2013							
Authorized Signature: Printed Name: R	ashmi Makol							
	roject Manager							







# **RCP Certification Report**

July 23, 2013

**SDG I.D.: GBD99578** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 07/11/13-1 (BD99583, BD99601)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/11/2013

**Instrument:** Au-ecd1 07/12/13-1 (BD99584)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/12/2013

**Instrument:** Au-ecd1 07/15/13-1 (BD99584)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

**Printed Name** Adam Werner **Position:** Chemist **Date:** 7/15/2013

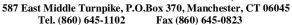
**Instrument:** Au-ecd6 07/19/13-1 (BD99578, BD99600)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none







# **RCP Certification Report**

July 23, 2013

**SDG I.D.: GBD99578** 

Printed Name Adam Werner Position: Chemist 7/19/2013

#### QC (Batch Specific)

----- Sample No: BD99552, QA/QC Batch: 239784 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

------ Sample No: BD99568, QA/QC Batch: 241301 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**

The samples were received at 6.0C with cooling initiated. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

Column IVE | No | \* SURCHARGE APPLIES Phoenix Std Report Full Data Package\* Data Package
Tier II Checklist Project P.O: 4376/8) Phone #: 860 858 3735 K Email Jert. Latto P 52 c. CON 068- 652-8550 ŏ Excel
R PDF
GIS/Key Data Format ☐ EQuIS °C Pg MA MCP Certification MWRA eSMART Fax #: U ☐ GW-3 ☐ GW-2 ☐ GW-1 S-1 % % □□ Data Delivery: State where samples were collected: Residential DEC CI X RCP Cert ☐ GW Protection SW Protection GA Mobility GB Mobility ☐ I/C DEC Connected Foully Company ☐ Direct Exposure 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 **CHAIN OF CUSTODY RECORD** (Residential) Other Fto 1.4 HAP % □ Ę 054 \* SURCHARGE APPLIES Time: Invoice to: Report to: 3 Days\*
Standard
Other Analysis Request Project: Turnaround: 2 Days 四/次/9 Sampled JYY1 735H 045/ 1500 1430 1410 1605 1105 ochi 5 7 7 Matrix Code:

DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other perments, Special Requirements or Regulations: // PCB anclysis [fq Jir manue] Spxh et extretion 5//20/J3 COL 755 Date Sampled 1/02/9 Client Sample - Information - Identification 655 Winding Brook ONL Sample Matrix 0 Environmental Laboratories, Inc. Accepted by: 2. Octobrow limits OS mg/lg 4 the order 1435 (250) b A-14-F23 (05-1 A-14-F15 (05-1) A-14-F16 (0.5-1) 1-5-10/81-7-41-1 1-50) BJ-H-B A-14- F- 12 (05-1) (150) 217-H-A A-14-F17 (0.5-1 A-14-F-20 (05-1 1-50) (C-1-11-17 F 25/04) A-14-F.14(0,5-1) Customer Sample Identification Glastoching, A-14 F-27 3 PHOENIX USE ONLY Relinguished by Customer: withou Address: プランプ Sampler's Signature 22 <u>a</u>

es □ № □ ICE □ N □	
Cooler: Ye	
the table	
7)	I

	CHAIN OF CUSTODY RECORD		Тетр	°C Pg 🕽 of 🕽
PHOFINIX SET 1 Email: E	587 East Middle Turnpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Data Delivery:    Fax #	<u>VerV:</u> #	
Customer: 624	Project: Commercial Founds Comment	Comes "	Project P.O. 4	42261.87
<u>ن</u>	' ;;			2516-858-048
Glandahuy, CT				860-622-8590
ormation - Identification				
ate: 6/30/13	Analysis Request		Cg;	14000 1400 1400 1400 1400 1400 1400 140
Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water  SE=Sediment SL=Sludge S=Soil/Soild W=Wipe O=Other	27.603		Ole de la le	
SAMPLE # Identification Matrix Sampled Sampled		16 16 16 16 16 16 16 16 16 16 16 16 16 1	ON THE OF	Believes of the state of the st
0191 21/0c/9 0 (+so).	X PLACE ON HOLD	X		\
1 (				-
0151 1 (1.50) (F-14-F-96)				
151   1515   1500   St. 7- H-F 56569				
79557 N-14-F30 (05-1) 1530				
-14-F-30(0,5-j)				
1596				
49597 A-14-F.22 (Os-1) 1525				
9959K A-14-E37 (05-1)				
99599 A-M-F34 (Os.1) 1535				
99600 A-14-F3 (05-1) 1, 155C				
99601 A-H-For (0.5-1) V V 1635 N		<b>→</b>		
Relinguished by: Acceded by:	Time: RI		MA	Data Format
Color 1 Colors of Colors	(Residential)	RCP Cert		Excel
Private 1 0 Changlant M	7/1/13 10'8 a		GW-2	GIS/Key
	#1/13 1/0/5   other		GW-3	EQUIS Other
exilet extration			S-1	Data Package
	1 Day*	Residential DEC	2-S 2-3	Tier II Checklist

Data Package
Tier II Checklist
Full Data Package\*
Phoenix Std Report
Other

| S-2 | S-3 | MWRA eSMART

GB Mobility
Residential DEC
1/C DEC
Other

2. Detection limit our my/kg

\* SURCHARGE APPLIES

State where samples were collected:

#### Linda - Phoenixlabs

From: Anthony Trani [Anthony.Trani@gza.com]

Sent: Wednesday, July 10, 2013 10:35 AM

To: 'linda@phoenixlabs.com'

Cc: James Hutton

Subject: Commercial Foundry Samples to run

Linda,

Can we please have the following samples taken off hold and run for PCB using manual soxhlet. Standard TOT. The job is Commercial Foundry (43369.83)

#### **Concrete Floor Samples**

Phoenix ID: 99583
Phoenix ID: 99584
Phoenix ID: 99601
Phoenix ID: 99551
Phoenix ID: 99552
Phoenix ID: 99553
Phoenix ID: 99558
Phoenix ID: 99569
Phoenix ID: 99574

Soil Samples	
GZA ID: A-14-S24 (0-0.25)	Phoenix ID: 00875 6-BF 00861
GZA ID: Ext-6 (0.25-0.5)	Phoenix ID: 00904
GZA ID: Ext-9 (0.75-1)	Phoenix ID: 00923
GZA ID: Ext-10 (1.75-2)	Phoenix ID: 00930
GZA ID: Ext-10(2.75-3)	Phoenix ID: 00931
GZA ID: EXT-103	Phoenix ID: 99779, I sent an email yesterday requesting this but did
not get a confirmation from you	so I am including it again.

Can we have the following samples taken off hold and run for ETPH. Standard TOT.

#### Soil Samples

Phoenix ID: 99799 6BD 9979 1 GZA ID: A-1-S-8 (1-2)

GZA ID: A-3-S-18 Phoenix ID: 01299 Note-This sample name should be change as 6月2013年分

follows: A-3-S-18 (2-4)

#### **Anthony Trani**

#### Scientist

GZA GeoEnvironmental, Inc. 655 Winding Brook Drive, Suite 402 Glastonbury, Connecticut 06033 (860) 858-3121 (direct) (860) 990-5404 (cell) (860) 652-8590 (fax) anthony.trani@gza.com

#### Linda - Phoenixlabs

From: Anthony Trani [Anthony.Trani@gza.com] Sent: Wednesday, July 10, 2013 10:35 AM

To: 'linda@phoenixlabs.com'

Cc: James Hutton

Subject: Commercial Foundry Samples to run

Linda,

Can we please have the following samples taken off hold and run for PCB using manual soxhlet. Standard TOT. The job is Commercial Foundry (43369.83)

#### **Concrete Floor Samples**

GZA ID: A-14-F-17 (0.5-1)	Phoenix ID: 99583
GZA ID: A-14-F-18 (0.5-1)	Phoenix ID: 99584
GZA ID: A-14-F-36 (0.5-1)	Phoenix ID: 99601
GZA ID: A-14-F-12 (0-0.5)	Phoenix ID: 99551
GZA ID: A-14-F-13 (0-0.5)	Phoenix ID: 99552
GZA ID: A-14-F-14 (0-0.5)	Phoenix ID: 99553
GZA ID: A-14-F-19 (0-0.5)	Phoenix ID: 99558
GZA ID: A-14-F-30 (0-0.5)	Phoenix ID: 99569
GZA ID: A-14-F-35 (0-0.5)	Phoenix ID: 99574

#### Soil Samples

<u>son samples</u>		16 4001
GZA ID: A-14-S24 (0-0.25)	Phoenix ID: 00875	6-BF 00861
GZA ID: Ext-6 (0.25-0.5)	Phoenix ID: 00904	
GZA ID: Ext-9 (0.75-1)	Phoenix ID: 00923	
GZA ID: Ext-10 (1.75-2)	Phoenix ID: 00930	
GZA ID: Ext-10(2.75-3)	Phoenix ID: 00931	
GZA ID: EXT-103	Phoenix ID: 99779, I se	nt an email yesterday requesting this but did
not get a confirmation from you		

Can we have the following samples taken off hold and run for ETPH. Standard TOT.

#### **Soil Samples**

6BD99791 GZA ID: A-1-S-8 (1-2) Phoenix ID: 99799

GZA ID: A-3-S-18 Phoenix ID: 01299 Note-This sample name should be change as  $\ensuremath{\mathit{GBD0139}}\xspace \ensuremath{\mathcal{S}}$ follows: A-3-S-18 (2-4)

#### Anthony Trani Scientist

GZA GeoEnvironmental, Inc. 655 Winding Brook Drive, Suite 402 Glastonbury, Connecticut 06033 (860) 858-3121 (direct) (860) 990-5404 (cell) (860) 652-8590 (fax) anthony.trani@gza.com

### Loreen - Phoenixlabs

From: Anthony Trani [Anthony.Trani@gza.com]

**Sent:** Monday, July 22, 2013 2:58 PM

To: Loreen - Phoenixlabs

Subject: RE: Results

Thanks,

Can you also take the following samples off hold and have them analyzed for PCBs via Soxhlet.

GZA ID: A-14-F-32 Phoenix ID: 99597 GZA ID: A-14-F-34 Phoenix ID: 99599

Anthony

----Original Message----

From: Loreen - Phoenixlabs [mailto:loreen@phoenixlabs.com]

Sent: Monday, July 22, 2013 2:42 PM

To: Anthony Trani Subject: RE: Results

Anthony-

GZA ID: A14-F-12 (0.5-1) Phoenix ID: 99578
GZA ID: A14-F-35 (0.5-1.0) Phoenix ID: 99600
GZA ID: A-14-F-17 (0.5-1) Phoenix ID: 99583
GZA ID: A-14-F-18 (0.5-1) Phoenix ID: 99584
GZA ID: A-14-F-36 (0.5-1) Phoenix ID: 99601

Were part of the email I sent earlier......the other two samples I will check on and let you know..Loreen

----Original Message-----

From: Anthony Trani [mailto:Anthony.Trani@gza.com]

Sent: Monday, July 22, 2013 2:20 PM

To: Loreen - Phoenixlabs Subject: RE: Results

Thanks Loreen,

Do you know when the results for the below samples will be available (draft is okay):

GZA ID: A14-F-12 (0.5-1) Phoenix ID: 99578
GZA ID: A14-F-35 (0.5-1.0) Phoenix ID: 99600
GZA ID: A-14-F-17 (0.5-1) Phoenix ID: 99583
GZA ID: A-14-F-18 (0.5-1) Phoenix ID: 99584
GZA ID: A-14-F-36 (0.5-1) Phoenix ID: 99601
GZA ID: A14-S-22 (0-0.25) Phoenix ID: 00861
GZA ID: A14-S-23 (0-0.25) Phoenix ID: 00868

Anthony



Thursday, July 18, 2013

Attn: Mr. Jim Hutton
GZA GeoEnvironmental Inc
655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY COMPANIES

Sample ID#s: BD99775

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301

CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007

ME Lab Registration #CT-007

NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530

RI Lab Registration #63

VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 18, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOLID Collected by: ΑT 07/01/13 9:30 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:53 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBD99775

Phoenix ID: BD99775

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: ORANGE 1

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 85 % 07/01/13 E160.3 JL Extraction for PCB PP/K/W SW3540C Completed 07/15/13 PCB (Soxhlet) PCB-1016 ND 4600 mg/kg 07/16/13 ΑW 3540C/8082 PCB-1221 ND 4600 mg/kg 07/16/13 AW 3540C/8082 3540C/8082 ND 4600 07/16/13 ΑW PCB-1232 mg/kg PCB-1242 ND 4600 07/16/13 ΑW 3540C/8082 mg/kg 14000 4600 07/16/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 4600 mg/kg 07/16/13 AW 3540C/8082 PCB-1260 ND 4600 07/16/13 ΑW mg/kg PCB-1262 ND 4600 mg/kg 07/16/13 ΑW 3540C/8082 ND 4600 07/16/13 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 07/16/13 AW 30 - 150 % % TCMX Diluted Out % 07/16/13 30 - 150 %

Page 1 of 2 Ver 2

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: ORANGE 1

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 18, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BD99775

Page 2 of 2 Ver 2



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# QA/QC Report

July 18, 2013

# QA/QC Data

SDG I.D.: GBD99775

%

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits
QA/QC Batch 238311, QC 5	Sample No: BD99773 (BD	99775, BD99776)							
Polychlorinated Biphe		,							
PCB-1016	ND	85	78	8.6	89			40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	87	85	2.3	90			40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	87	84	86	2.4	88			30 - 150	30
% TCMX (Surrogate Rec)	73	85	75	12.5	83			30 - 150	30
QA/QC Batch 239530, QC 5	Sample No: BF02718 (BD	99777)							
Polychlorinated Biphe	enyls - Solid								
PCB-1016	ND	94	92	2.2	88	86	2.3	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	89	89	0.0	103	110	6.6	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	83	86	85	1.2	100	99	1.0	30 - 150	30
% TCMX (Surrogate Rec)	77	92	88	4.4	99	92	7.3	30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

July 18, 2013

Thursday, July 18, 2013

**Sample Criteria Exceedences Report** 

**GBD99775 - GZA-PCB** 

State: CT

Requested Criteria: None

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Labo	Laboratory Name: Phoenix Environmental Labs, Inc. Client: GZA-PCB								
Proje	ject Location: COMMERCIAL FOUNDRY COM	Project N	umber:						
Labo	oratory Sample ID(s): BD99775, BD99776, BD9	9777							
Sam	npling Date(s): 7/1/2013								
RCP	P Methods Used:								
13	311/1312	7470/7471	8081	EPH		TO15			
<b>✓</b> 80	082	ETPH	9010/9012	☐ VPH					
1.	For each analytical method referenced in this laboratory specified QA/QC performance criteria followed, including any criteria falling outside of acceptable guidelines, as specific Reasonable Confidence Protocol documents?	g the requirem	ent to explain	✓ Yes	□ No				
1a.	Were the method specified preservation and holding time	ne requirement	s met?	✓ Yes	□No				
1b.	EPH and VPH methods only: Was the VPH or EPH me significant modifications (see section 11.3 of respective			☐ Yes	□No	<b>✓</b> NA			
2.	Were all samples received by the laboratory in a condition described on the associated Chain-of-Custody document	vith that	✓ Yes	□No					
3.	Were samples received at an appropriate temperature (	< 6 Degrees C	)?	☐ Yes	✓ No	$\square$ NA			
4.	Were all QA/QC performance criteria specified in the Redocuments achieved?	easonable Con	fidence Protocol	✓ Yes	□ No				
5a.	Were reporting limits specified or referenced on the chair	in-of-custody?		✓ Yes	□No				
5b.	Were these reporting limits met?			✓ Yes	□No	□NA			
6.	For each analytical method referenced in this laboratory reported for all constituents identified in the method-specthe Reasonable Confidence Protocol documents?			✓ Yes	□ No	□NA			
7.	Are project-specific matrix spikes and laboratory duplica	tes included in	the data set?	☐ Yes	<b>✓</b> No	□NA			
Note:	Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".								
and	ne undersigned, attest under the pains and pend belief and based upon my personal inquiry of ntained in this analytical report, such information	f those resp	onsible for pro	viding th	•	_			
			Date: Thurso	lay, July 1	8, 2013				
	thorized mature:	Printed	d Name: Marya		,				
		 F	Position: Projec	t Manager					



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

July 18, 2013

**SDG I.D.: GBD99775** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** <u>Au-ecd1 07/08/13-1 (BD99775)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/8/2013

**Instrument:** Au-ecd3 07/16/13-1 (BD99775)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/16/2013

**Instrument:** Au-ecd5 07/10/13-1 (BD99777)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

**Printed Name** Adam Werner **Position:** Chemist **Date:** 7/10/2013

**Instrument:** Au-ecd6 07/05/13-1 (BD99775, BD99776)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

July 18, 2013

**SDG I.D.: GBD99775** 

Printed Name Adam Werner Position: Chemist 7/5/2013

#### QC (Batch Specific)

----- Sample No: BD99773, QA/QC Batch: 238311 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

----- Sample No: BF02718, QA/QC Batch: 239530 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**

The samples were received at 7C with cooling initiated. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

	,	1						
Cooler: Yes N No □	Temp 7 °C Pg   of / Fax #. Email: jan 1. hall 0, 0, 0, 0	1380-878-0185 180-878-3135	Andrew Andrews	100 (400 X	A GIROLE A LOCAL TO CALL TO CA			
Coo	Temp Temp Data Delivery:  □ Fax #:  X Email: Jαr € L. N/	Project P.O:	Ctri		10 10 10 10 10 10 10 10 10 10 10 10 10 1			MA
		vergroo vo			7.05			sure KR RCP Cert  Sure SW Protection  SW Protection  GA Mobility
	ODY RECORD Manchester, CT 06040 Fax (860) 645-082 860) 645-8726	Jim Hitten Jim Hitten				77dwas		
	CHAIN OF CUSTODY RECORD 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Project: C Report to: J Invoice to: J	Analysis Request	Sty Volad		XX X		Date; Time:
4.	CH 587 Email	70h 4	1/1/13	ste Water	Time Sampled	S6)7		
		DAV, 50t	cation Date:	ter WW=Was	Sampled 7/1/13			
	Inc.		on - Identiffi	Surface Wa W=Wip	Sample Matrix			Lade by:
v	OENIX FRANCE IN THE SECOND OF	GSA SS Winding Brook Gladonbury CT	Client Sample - Information - Identification	V=Ground Water SW= udge S=Soil/Solid	Customer Sample Identification	Orange 3		Accepted by MCULA
	PHOENIX FOR THE SERVIT OF THE SERVIC OF THE	Customer: Address:	Client Sam Sampler's C. M. L. K. Signature	Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Wate  SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	PHOENIX USE ONLY SAMPLE #	<del>                                     </del>		Relinquished by Arcepted by:  (Andy Arami (MCUC)

Data Package
☐ Tier II Checklist;
☐ Full Data Package\*
☐ Phoenix Std Report
☐ Other

| S-2 | S-3 | MWRA eSMART | Other

GB Mobility
Residential DEC
VC DEC
Other

Turnaround:
1 Day\*
2 Days\*
3 Days\*

X Standard
Other
surcharge APPLIES

2 octection limits a 0.5 Mg/ kg

Comments, Special Requirements or Regulations:

□ S-1

\* SURCHARGE APPLIES

U

State where samples were collected:

#### Linda - Phoenixlabs

From: Anthony Trani [Anthony.Trani@gza.com]

**Sent:** Tuesday, July 09, 2013 1:19 PM

To: 'linda@phoenixlabs.com'

Subject: CFC sample analysis

Linda,

We would like to analyze the following sample that we had placed on hold for PCBs using manual soxhlet. Standard TOT

Project: Commercial Foundry Companies (43369.83)

Sample: Orange-3 collected on 7/1/2013 with phoenix id 99777.

Thanks Anthony

Anthony Trani Scientist

GZA GeoEnvironmental, Inc. 655 Winding Brook Drive, Suite 402 Glastonbury, Connecticut 06033 (860) 858-3121 (direct) (860) 990-5404 (cell) (860) 652-8590 (fax) anthony.trani@gza.com



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For information about GZA GeoEnvironmental, Inc. and its services, please visit our website at www.gza.com.



Friday, July 12, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY COMPANIES

Sample ID#s: BD99775 - BD99777

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOLID Collected by: ΑT 07/01/13 9:30 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:53 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBD99775

Phoenix ID: BD99775

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: ORANGE 1

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 85 % 07/01/13 E160.3 JL Extraction for PCB PP/HB/K SW3540C Completed 07/01/13 PCB (Soxhlet) PCB-1016 ND 25000 mg/kg 07/08/13 ΑW 3540C/8082 PCB-1221 ND 25000 mg/kg 07/08/13 AW 3540C/8082 3540C/8082 ND 25000 07/08/13 ΑW PCB-1232 mg/kg PCB-1242 ND 25000 07/08/13 ΑW 3540C/8082 mg/kg 37000 25000 07/08/13 AW 3540C/8082 PCB-1248 mg/kg ND 3540C/8082 PCB-1254 25000 mg/kg 07/08/13 AW 25000 07/08/13 3540C/8082 PCB-1260 ND ΑW mg/kg PCB-1262 ND 25000 mg/kg 07/08/13 ΑW 3540C/8082 ND 25000 07/08/13 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 07/08/13 AW 30 - 150 % % TCMX Diluted Out % 07/08/13 30 - 150 %

Page 1 of 6 Ver 1

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: ORANGE 1

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD99775

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 12, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Page 2 of 6 Ver 1



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**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 07/01/13 11:25 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:53 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

Laboratory Data

SDG ID: GBD99775

Phoenix ID: BD99776

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: ORANGE 2

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 83 % 07/01/13 E160.3 JL Extraction for PCB PP/HB/K SW3540C Completed 07/01/13 PCB (Soxhlet) PCB-1016 ND 9.6 mg/kg 07/05/13 ΑW 3540C/8082 PCB-1221 ND 9.6 mg/kg 07/05/13 AW 3540C/8082 3540C/8082 ND 07/05/13 ΑW PCB-1232 9.6 mg/kg PCB-1242 ND 07/05/13 ΑW 3540C/8082 9.6 mg/kg 07/05/13 AW 3540C/8082 PCB-1248 110 9.6 mg/kg 3540C/8082 PCB-1254 ND 9.6 mg/kg 07/05/13 AW 3540C/8082 PCB-1260 ND 9.6 07/05/13 ΑW mg/kg PCB-1262 ND 9.6 mg/kg 07/05/13 ΑW 3540C/8082 ND 07/05/13 ΑW 3540C/8082 PCB-1268 9.6 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 07/05/13 AW 30 - 150 % % TCMX Diluted Out % 07/05/13 30 - 150 %

Page 3 of 6 Ver 1

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: ORANGE 2

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD99776

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 12, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Page 4 of 6 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc. 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 07/01/13 14:00 **GZA-PCB** Received by: Location Code: LB 07/01/13 16:53 Rush Request: Standard Analyzed by: see "By" below

\_aboratory Data

SDG ID: GBD99775

Phoenix ID: BD99777

Project ID: COMMERCIAL FOUNDRY COMPANIES

43369.83

Client ID: **ORANGE 3** 

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 100 % 07/10/13 LB E160.3 1 Extraction for PCB Completed 07/09/13 PP/HB SW3540C PCB (Soxhlet) PCB-1016 ND 1.6 mg/kg 07/10/13 ΑW 3540C/8082 PCB-1221 ND 1.6 mg/kg 07/10/13 AW 3540C/8082 3540C/8082 ND 07/10/13 ΑW PCB-1232 1.6 mg/kg PCB-1242 ND 07/10/13 ΑW 3540C/8082 1.6 mg/kg 19 07/10/13 AW 3540C/8082 PCB-1248 1.6 mg/kg 3540C/8082 PCB-1254 ND 1.6 mg/kg 07/10/13 AW 3540C/8082 PCB-1260 ND 1.6 07/10/13 ΑW mg/kg PCB-1262 ND 1.6 mg/kg 07/10/13 ΑW 3540C/8082 ND 07/10/13 ΑW 3540C/8082 PCB-1268 1.6 mg/kg **QA/QC Surrogates** % DCBP 75 % 07/10/13 AW 30 - 150 % % TCMX 48 % 07/10/13 30 - 150 %

> Page 5 of 6 Ver 1

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: ORANGE 3

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BD99777

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 12, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Page 6 of 6 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

July 12, 2013

# QA/QC Data

SDG I.D.: GBD99775

		LCS	LCSD	LCS	MS	MSD	MS	% Rec	% RPD	
Parameter	Blank	%	%	RPD	%	%	RPD	Limits	Limits	
QA/QC Batch 238311, QC Sample No: BD99773 (BD99775, BD99776)										
Polychlorinated Biphenyls - Solid										
PCB-1016	ND	85	78	8.6	89			40 - 140	30	
PCB-1221	ND							40 - 140	30	
PCB-1232	ND							40 - 140	30	
PCB-1242	ND							40 - 140	30	
PCB-1248	ND							40 - 140	30	
PCB-1254	ND							40 - 140	30	
PCB-1260	ND	87	85	2.3	90			40 - 140	30	
PCB-1262	ND							40 - 140	30	
PCB-1268	ND							40 - 140	30	
% DCBP (Surrogate Rec)	87	84	86	2.4	88			30 - 150	30	
% TCMX (Surrogate Rec)	73	85	75	12.5	83			30 - 150	30	
QA/QC Batch 239530, QC	C Sample No: BF02718 (BD9	99777)								
Polychlorinated Biph	<u>nenyls - Solid</u>									
PCB-1016	ND	94	92	2.2	88	86	2.3	40 - 140	30	
PCB-1221	ND							40 - 140	30	
PCB-1232	ND							40 - 140	30	
PCB-1242	ND							40 - 140	30	
PCB-1248	ND							40 - 140	30	
PCB-1254	ND							40 - 140	30	
PCB-1260	ND	89	89	0.0	103	110	6.6	40 - 140	30	
PCB-1262	ND							40 - 140	30	
PCB-1268	ND							40 - 140	30	
% DCBP (Surrogate Rec)	83	86	85	1.2	100	99	1.0	30 - 150	30	
% TCMX (Surrogate Rec)	77	92	88	4.4	99	92	7.3	30 - 150	30	

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

July 12, 2013

Friday, July 12, 2013

SampNo

Sample Criteria Exceedences Report GBD99775 - GZA-PCB

Requested Criteria: None

Acode

State: CT

Phoenix Analyte

Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Criteria

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: GZA-PCB												
Proje	Project Location: COMMERCIAL FOUNDRY COM Project Number:											
Labo	Laboratory Sample ID(s): BD99775, BD99776, BD99777											
Sam	Sampling Date(s): 7/1/2013											
RCP	RCP Methods Used:											
13	1311/1312     6010     7000     7196     7470/7471     8081										TO15	
<b>✓</b> 80	082	8151	8260	8270	E	TPH	9010/90	12	☐ VPH			
1.	specified ( any criteria	QA/QC perfor a falling outside	rmance criteri de of accepta	ed in this labor a followed, inc ble guidelines, tocol documer	luding t as spe	he require	ment to expla		✓ Yes	□ No		
1a.	Were the	method spec	ified preserva	tion and holdir	ng time	requireme	nts met?		✓ Yes	$\square$ No		
1b.				he VPH or EP 11.3 of respe					☐ Yes	□ No	<b>☑</b> NA	
2.				oratory in a co of-Custody doc			with that		✓ Yes	□ No		
3.	Were sam	ples received	l at an approp	oriate temperat	ure (< 6	6 Degrees	C)?		□ Yes	✓ No	□NA	
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?   ✓ Yes □ No											
5a.	Were repo	orting limits sp	pecified or refe	erenced on the	e chain-	of-custody	?		✓ Yes	□No		
5b.	Were thes	se reporting li	mits met?						✓ Yes	□No	□NA	
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?											
7.	Are projec	t-specific ma	trix spikes and	d laboratory du	ıplicate	s included	in the data s	et?	☐ Yes	✓ No	□NA	
Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".												
I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.												
	Date: Friday, July 12, 2013											
	horized nature:		Mahaul	, OV		Printe	ed Name: I	-	•			
	Position: Project Manager											







# **RCP Certification Report**

July 12, 2013

**SDG I.D.: GBD99775** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 07/08/13-1 (BD99775)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/8/2013

**Instrument:** Au-ecd5 07/10/13-1 (BD99777)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/10/2013

**Instrument:** <u>Au-ecd6 07/05/13-1 (BD99775, BD99776)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/5/2013



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

July 12, 2013

**SDG I.D.: GBD99775** 

QC (Batch Specific)
Sample No: BD99773, QA/QC Batch: 238311
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Sample No: BF02718, QA/QC Batch: 239530
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

### **Temperature Narration**

The samples were received at 7C with cooling initiated. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

	,	1						
Cooler: Yes N No □	Temp 7 °C Pg   of / Fax #. Email: jan 1. hall 0, 0, 0, 0	1380-878-0185 180-878-3135	Andrew Andrews	100 (400 X	A GIBOLE A LOCAL TO CALL TO CA			
Coo	Temp Temp Data Delivery:  □ Fax #:  X Email: Jαr € L. N/	Project P.O:	Ctri		10 10 10 10 10 10 10 10 10 10 10 10 10 1			MA
		vergroo vo			7.05			sure KR RCP Cert  Sure SW Protection  SW Protection  GA Mobility
	ODY RECORD Manchester, CT 06040 Fax (860) 645-082 860) 645-8726	Jim Hitten Jim Hitten				77dwas		
	CHAIN OF CUSTODY RECORD 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726	Project: C Report to: J Invoice to: J	Analysis Request	Sty Volad		XX X		Date; Time:
4.	CH 587 Email	70h 4	1/1/13	ste Water	Time Sampled	S6)7		
		DAV, 50t	cation Date:	ter WW=Was	Sampled 7/1/13			
	Inc.		on - Identiffi	Surface Wa W=Wip	Sample Matrix			Lade by:
v	OENIX FRANCE IN THE SECOND OF	GSA SS Winding Brook Gladonbury CT	Client Sample - Information - Identification	V=Ground Water SW= udge S=Soil/Solid	Customer Sample Identification	Orange 3		Accepted by MCULA
	PHOENIX FOR THE SERVIT OF THE SERVIC OF THE	Customer: Address:	Client Sam Sampler's C. M. L. K. Signature	Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Wate  SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	PHOENIX USE ONLY SAMPLE #	<del>                                     </del>		Relinquished by Arcepted by:  (Andy Arami (MCUC)

Data Package
☐ Tier II Checklist;
☐ Full Data Package\*
☐ Phoenix Std Report
☐ Other

| S-2 | S-3 | MWRA eSMART | Other

GB Mobility
Residential DEC
VC DEC
Other

Turnaround:
1 Day\*
2 Days\*
3 Days\*

X Standard
Other
surcharge APPLIES

2 octection limits a 0.5 Mg/ kg

Comments, Special Requirements or Regulations:

□ S-1

\* SURCHARGE APPLIES

U

State where samples were collected:

#### Linda - Phoenixlabs

From: Anthony Trani [Anthony.Trani@gza.com]

**Sent:** Tuesday, July 09, 2013 1:19 PM

To: 'linda@phoenixlabs.com'
Subject: CFC sample analysis

Linda,

We would like to analyze the following sample that we had placed on hold for PCBs using manual soxhlet. Standard TOT

Project: Commercial Foundry Companies (43369.83)

Sample: Orange-3 collected on 7/1/2013 with phoenix id 99777.

Thanks Anthony

Anthony Trani Scientist

GZA GeoEnvironmental, Inc.
655 Winding Brook Drive, Suite 402
Glastonbury, Connecticut 06033
(860) 858-3121 (direct)
(860) 990-5404 (cell)
(860) 652-8590 (fax)
anthony.trani@gza.com



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For information about GZA GeoEnvironmental, Inc. and its services, please visit our website at www.gza.com.



Monday, July 15, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY COMPANIES

Sample ID#s: BD99778 - BD99779

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

**Custody Information** Sample Information Time Date Matrix: SOLID Collected by: 07/01/13 13:40 **GZA-PCB** Received by: Location Code: SW 07/01/13 16:53 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 4336983

**Laboratory Data** 

SDG ID: GBD99778

Phoenix ID: BD99778

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: EXT-102

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 84 % 07/01/13 E160.3 JL Extraction for PCB PP/HB/K SW3540C Completed 07/01/13 PCB (Soxhlet) PCB-1016 ND 3.9 mg/kg 07/05/13 ΑW 3540C/8082 PCB-1221 ND 3.9 mg/kg 07/05/13 AW 3540C/8082 3540C/8082 ND 07/05/13 ΑW PCB-1232 3.9 mg/kg PCB-1242 ND 07/05/13 ΑW 3540C/8082 3.9 mg/kg 30 07/05/13 AW 3540C/8082 PCB-1248 3.9 mg/kg 3540C/8082 PCB-1254 ND 3.9 mg/kg 07/05/13 AW 3540C/8082 PCB-1260 ND 3.9 07/05/13 AW mg/kg PCB-1262 ND 3.9 mg/kg 07/05/13 ΑW 3540C/8082 ND 07/05/13 ΑW 3540C/8082 PCB-1268 3.9 mg/kg **QA/QC Surrogates** % DCBP Diluted Out % 07/05/13 AW 30 - 150 % % TCMX Diluted Out % 07/05/13 30 - 150 %

Page 1 of 4 Ver 2

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: EXT-102

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99778

Page 2 of 4 Ver 2



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**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOLIDCollected by:07/01/1314:10Location Code:GZA-PCBReceived by:SW07/01/1316:53Puch Paguett:StandardApplyzed by:applyzed by:applyzed by:applyzed by:

Rush Request: Standard Analyzed by: see "By" below

<u>Laboratory Data</u>

SDG ID: GBD99778 Phoenix ID: BD99779

Project ID: COMMERCIAL FOUNDRY COMPANIES

4336983

Client ID: EXT-103

P.O.#:

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 82 % 07/10/13 E160.3 JL Extraction for PCB Completed 07/10/13 PP/K SW3540C PCB (Soxhlet) PCB-1016 ND 0.4 mg/kg 07/11/13 ΑW 3540C/8082 PCB-1221 ND 0.4 mg/kg 07/11/13 AW 3540C/8082 3540C/8082 ND 07/11/13 ΑW PCB-1232 0.4 mg/kg PCB-1242 ND 07/11/13 ΑW 3540C/8082 0.4 mg/kg ND 07/11/13 AW 3540C/8082 PCB-1248 0.4 mg/kg 3540C/8082 PCB-1254 ND 0.4 mg/kg 07/11/13 AW 3540C/8082 PCB-1260 ND 0.4 07/11/13 ΑW mg/kg PCB-1262 ND 0.4 mg/kg 07/11/13 ΑW 3540C/8082 ND 07/11/13 ΑW 3540C/8082 PCB-1268 0.4 mg/kg **QA/QC Surrogates** % DCBP 70 % 07/11/13 AW 30 - 150 % % TCMX 92 % 07/11/13 30 - 150 %

Page 3 of 4 Ver 2

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: EXT-103

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BD99779

Page 4 of 4 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

July 15, 2013

# QA/QC Data

SDG I.D.: GBD99778

		LCS	LCSD	LCS	MS	MSD	MS	% Rec	% RPD
Parameter	Blank	%	%	RPD	%	%	RPD	Limits	Limits
QA/QC Batch 239784, QC	Sample No: BD99552 (BD99779)								
Polychlorinated Biph	nenyls - Solid								
PCB-1016	ND ND	77	75	2.6	79	86	8.5	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	78	81	3.8	85	83	2.4	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	84	86	87	1.2	85	86	1.2	30 - 150	30
% TCMX (Surrogate Rec)	81	86	84	2.4	88	88	0.0	30 - 150	30
QA/QC Batch 238311, QC	Sample No: BD99773 (BD99778)								
Polychlorinated Biph	<u>nenyls - Solid</u>								
PCB-1016	ND	85	78	8.6	89			40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	87	85	2.3	90			40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	87	84	86	2.4	88			30 - 150	30
% TCMX (Surrogate Rec)	73	85	75	12.5	83			30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

July 15, 2013

Monday, July 15, 2013

**Sample Criteria Exceedences Report GBD99778 - GZA-PCB** 

State: CT

Requested Criteria: None

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

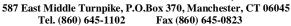
Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Labo	Laboratory Name: Phoenix Environmental Labs, Inc. Client: GZA-PCB											
Proje	ect Location: COMMERCIAL FOUNDRY COM Project Number:											
Labo	pratory Sample ID(s): BD99778, BD99779											
Sam	pling Date(s): 7/1/2013											
RCP	RCP Methods Used:											
13	☐ 1311/1312 ☐ 6010 ☐ 7000 ☐ 7196 ☐ 7470/7471 ☐ 8081 ☐ EPH ☐ TO15											
<b>✓</b> 80	82	☐ VPH										
1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	✓ Yes	□ No									
1a.	Were the method specified preservation and holding time requirements met?	✓ Yes	□No									
1b.	EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	□ Yes	□ No	✓ NA								
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?  ✓ Yes □ No											
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☐ Yes	✓ No	$\square$ NA								
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?											
5a.	Were reporting limits specified or referenced on the chain-of-custody?	✓ Yes	□No									
5b.	Were these reporting limits met?	✓ Yes	□No	□NA								
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	✓ Yes	□ No	□NA								
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	□ Yes	<b>✓</b> No	□NA								
Note:	Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".											
and	e undersigned, attest under the pains and penalties of perjury that, to the belief and based upon my personal inquiry of those responsible for protained in this analytical report, such information is accurate and comple	viding th										
	horized Date: Monda Printed Name: Greg		, 2013									
5.9	Position: Assists		rootor									







# **RCP Certification Report**

July 15, 2013

**SDG I.D.: GBD99778** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 07/11/13-1 (BD99779)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/11/2013

**Instrument:** Au-ecd6 07/05/13-1 (BD99778)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/5/2013

#### QC (Batch Specific)

------ Sample No: BD99552, QA/QC Batch: 239784 ------All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

----- Sample No: BD99773, QA/QC Batch: 238311 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**



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# **RCP Certification Report**

July 15, 2013

**SDG I.D.: GBD99778** 

The samples were received at 7C with cooling initiated. (Note acceptance criteria is above freezing up to  $6^{\circ}C)$ 

Cooler: Yes K No ☐ Coolant: IPK ☐ ICE K N ☐ CUSTODY RECORD Temp 7 °C Pg   of			
	•	Temp 7 °C Pg of	CUSTODY RECORD
Cooler: Yes 🔀 No		Coolant: IPK ☐ IĆE 💢 N 🗍	
		Cooler: Yes 🗷 No	

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Project P.O. 4720. Phone #: Fax #: 587 East Middle Turnpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 けお 174 Commercial Project: Report to: Invoice to: 504 of J 655 Winding Brook Environmental Laboratories, Inc. Harbar 6 U.S. Customer: Address:

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Identificat	face Water	<b>W</b> =Wipe	Sample	4	4									adisc			
Client Sample - Information - Identification  On the Sure	Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water	SL=Sludge S=Soil/Solid	Customer Sample	EXT-102	FXT-103								Accepted by:	2007			notification of Dominion
Sampler's Oxt	Matrix Code: DW=Drinking Water G	SE=Sediment SL=S	PHOENIX USE ONLY	<u>.</u>	99779 F								Relinquished by:	(Joseph Yu	<b>S</b>		Commonts Special Beautism

\* SURCHARGE APPLIES

State where samples were collected:

\* SURCHARGE APPLIES

Phoenix Std Report ☐ Tier II Checklist ☐ Full Data Package\*

| S-2 | S-3 | MWRA eSMART | Other

Data Package

s-1 -S □ 6W-3

Residential DEC

☐ I/C DEC Other

Turnaround:

1 Day\*
2 Days\*
3 Days\*

R Standard
Other

GB Mobility

Comments, Special Requirements or Regulations:

J. Othelia- limits: 0.5 mg I mand sexlit extration



Monday, July 15, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: CFC 05.0043369.83

Sample ID#s: BF00875

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



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**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOIL Collected by: 07/02/13 11:23 Received by: Location Code: **GZA-PCB** LB 07/03/13 14:17 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

Laboratory Data

SDG ID: GBF00861

Phoenix ID: BF00875

Project ID: CFC 05.0043369.83 Client ID: A14-S-24 0-0.25

RI/

KL/				
PQL	Units	Date/Time	Ву	Reference
	%	07/10/13	JL	E160.3
		07/10/13	PP/K	SW3540C
0.35	mg/kg	07/11/13	AW	3540C/8082
0.35	mg/kg	07/11/13	AW	3540C/8082
0.35	mg/kg	07/11/13	AW	3540C/8082
0.35	mg/kg	07/11/13	AW	3540C/8082
0.35	mg/kg	07/11/13	AW	3540C/8082
0.35	mg/kg	07/11/13	AW	3540C/8082
0.35	mg/kg	07/11/13	AW	3540C/8082
0.35	mg/kg	07/11/13	AW	3540C/8082
0.35	mg/kg	07/11/13	AW	3540C/8082
	%	07/11/13	AW	30 - 150 %
	%	07/11/13	AW	30 - 150 %
	0.35 0.35 0.35 0.35 0.35 0.35 0.35	PQL Units  %  0.35 mg/kg	PQL Units Date/Time  % 07/10/13 07/10/13  0.35 mg/kg 07/11/13	PQL         Units         Date/Time         By           %         07/10/13         JL           07/10/13         PP/K           0.35         mg/kg         07/11/13         AW           0.35         mg/kg         07/11/13         AW

Page 1 of 2 Ver 1 Project ID: CFC 05.0043369.83 Client ID: A14-S-24 0-0.25

RL/

Units

Date/Time

By Reference

Phoenix I.D.: BF00875

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

Parameter

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

**PQL** 

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

Result

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Page 2 of 2 Ver 1



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# QA/QC Report

July 15, 2013

# QA/QC Data

SDG I.D.: GBF00861

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 239810, QC	Sample No: BF00875 (BF00875)								
Polychlorinated Biphe	enyls - Soil								
PCB-1016	ND	75	83	10.1	70	74	5.6	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	80	83	3.7	78	79	1.3	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	96	90	94	4.3	88	88	0.0	30 - 150	30
% TCMX (Surrogate Rec)	82	80	85	6.1	73	76	4.0	30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

July 15, 2013

Monday, July 15, 2013

Sample Criteria Exceedences Report
GBF00861 - GZA-PCB

Page 1 of 1

State: CT

Requested Criteria: None

RL Analysis
SampNo Acode Phoenix Analyte Criteria Units
Result RL Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

<sup>\*\*\*</sup> No Data to Display \*\*\*

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: CFC 05.0043369.83 **Project Number:** Laboratory Sample ID(s): BF00861, BF00862, BF00863, BF00864, BF00865, BF00866, BF00867, BF00868, BF00869, BF00870, BF00871, BF00872, BF00873, BF00874, BF00875, BF00876, BF00877, BF00878, BF00879, BF00880, BF00881, BF00882, BF00883, BF00884 **Sampling Date(s):** 7/2/2013 **RCP Methods Used:** ☐ 1311/1312
☐ 6010 ☐ EPH 7000 7196 7470/7471 8081 TO15 **✓** 8082 8270 9010/9012 □ VPH 8151 8260 ETPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) 2. Were all samples received by the laboratory in a condition consistent with that ✓ Yes No. described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No □ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ✓ Yes No. Were these reporting limits met? 5b. ✓ Yes □ No □ NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No □ NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ✓ Yes □ No □ NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Monday, July 15, 2013 Authorized Printed Name: Maryam Taylor Signature: Position: Project Manager



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# **RCP Certification Report**

July 15, 2013

**SDG I.D.: GBF00861** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 07/11/13-1 (BF00875)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/11/2013

**Instrument:** Au-ecd3 07/11/13-1 (BF00875)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/11/2013

#### QC (Site Specific)

----- Sample No: BF00875, QA/QC Batch: 239810 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

All MS recoveries were within 40 - 140 with the following exceptions: None.

All MSD recoveries were within 40 - 140 with the following exceptions: None.

All MS/MSD RPDs were less than 30% with the following exceptions: None.

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.

#### **Temperature Narration**



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# **RCP Certification Report**

July 15, 2013

**SDG I.D.: GBF00861** 

The samples in this delivery group were received at 6°C. (Note acceptance criteria is above freezing up to 6°C)

Coolant: IPK L/ICE N \* SURCHARGE APPLIES Phoenix Std Report Full Data Package\* 860 246 8220 Tier II Checklist A Email: james hutter Egga cor **₹** Data Package Excel
PDF
GIS/Key Data Format EQuIS □ other Temp(0° °C Pg MA MCP Certification MWRA eSMART Project P.O: Phone #: Fax #: ☐ GW-2 ☐ GW-3 State where samples were collected: ( ☐ GW-1 Other S-2 ۶-۲ Data Delivery: Residential DEC ☐ GW Protection SW Protection GA Mobility GB Mobility CT RCP Cert ☐ I/C DEC Other CS.0047369.83 ☐ Direct Exposure (Residential) 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 and Hather **CHAIN OF CUSTODY RECORD** A Standard Market Standard Mar Other \_ □ GW Ŋ 210 \* SURCHARGE APPLIES 近近 nvoice to: Report to: 3 Days\*
Standard
Other Turnaround:
1 Day\*
2 Days\* Project: 4 Date: 125 Sampled 154 127 932) 270 27 Date: 7/2/13 75 155 1203 7 1202 DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other 2/2/3 Date Sampled Client Sample - Information | Identification Bear May Commonts, Special Requirements or Regulations: Sample Matrix . Please Greeze Samples on holl MM-5-23 (1.75-20) Environmental Laboratories, Inc. ママン22011年 Accepted by: A145-22(0.25-0.5 1214-5-23 (0.25-0.5) RA-5-30.15.1.0 00862 M45-22 (05-0.75) MY-5-22 (0.85-1.0) 00866 Mys-22 (2.353) · Retire Line or spon 50865 M4-5-22(1.75-2.3) MH-523 (0-0.25) をよっといの。光上か A45-22 (0-0.25) Customer Sample The then bern PHOENIX USE ONLY SAMPLE # Relinquished by E9890 Customer: Address: 0086 Sampler's Signature

		Cooler: Coolant: IPK	Cooler: Yest No□ t: IPK ( ICE□ N□
	CHAIN OF CUSTODY RECORD 587 East Middle Tumpike, Manchester, CT 06040	Temp $\bigcup_{\mathbf{Data\ Delivery:}} \mathbf{C} \sim \mathbb{C} Pg$	°C Pg 2of 4
LILVII VI/X 等數數	Email: info@phoenixlabs.com Fax (860) 645-0823  Client Services (860) 645-8726	Email: James, hutter	-0.55 B-
Customer: 672 b) reding Conte Drak Address: 675 b) reding CT 00033	Project: (Fc. 05, con 475.9.82 Report to: C. 2.00	Project P.O: Phone #: Fax #:	
Client Sample - Information - Identification Sampler's Signature Date: 7/L//	Analysis Request		11000
Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water  SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	A STATE OF THE PARTY OF THE PAR	\$ \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
HOENIX USE ONLY   Customer Sample   Sample   Date   Time   SamPled   Sampl	The state of the s	1	OF BILBIOER TO THE STATE OF THE
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(5.25-2.6)	<b>X</b>		
724 (0.5 4.75)	**>		
4737 (8.4.74.1) 42-6-47 (8.0.0)			
(2.25-32)	<b>y</b>		
44->2-(3.75-4.0)	<b>X</b>		
0883 44-27 (0.27-04) / [144			
V KF. 5-25-75-44 P			
	Time: Ra	T MA	Data Format
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ints, Special Requirements or Regulations:			Uther Data Package
· Treex Super on hold	1 Day*	Residential DEC S-2	Tier II Checklist Full Data Package*
atetr cint o. Spp-	3 Days*	Other Other Other	Phoenix Std Report Other
	APPLIES	State where samples were collected:	* SURCHARGE APPLIES

#### Linda - Phoenixlabs

From: Anthony Trani [Anthony.Trani@gza.com]

Sent: Wednesday, July 10, 2013 10:35 AM

To: 'linda@phoenixlabs.com'

Cc: James Hutton

Subject: Commercial Foundry Samples to run

Linda,

Can we please have the following samples taken off hold and run for PCB using manual soxhlet. Standard TOT. The job is Commercial Foundry (43369.83)

#### **Concrete Floor Samples**

GZA ID: A-14-F-17 (0.5-1)	Phoenix ID: 99583
GZA ID: A-14-F-18 (0.5-1)	Phoenix ID: 99584
GZA ID: A-14-F-36 (0.5-1)	Phoenix ID: 99601
GZA ID: A-14-F-12 (0-0.5)	Phoenix ID: 99551
GZA ID: A-14-F-13 (0-0.5)	Phoenix ID: 99552
GZA ID: A-14-F-14 (0-0.5)	Phoenix ID: 99553
GZA ID: A-14-F-19 (0-0.5)	Phoenix ID: 99558
GZA ID: A-14-F-30 (0-0.5)	Phoenix ID: 99569
GZA ID: A-14-F-35 (0-0.5)	Phoenix ID: 99574

#### Soil Samples

Soil Samples		200 1.00 / I
GZA ID: A-14-S24 (0-0.25)	Phoenix ID: 00875	6BF 00861
GZA ID: Ext-6 (0.25-0.5)	Phoenix ID: 00904	
GZA ID: Ext-9 (0.75-1)	Phoenix ID: 00923	
GZA ID: Ext-10 (1.75-2)	Phoenix ID: 00930	
GZA ID: Ext-10(2.75-3)	Phoenix ID: 00931	
GZA ID: EXT-103	Phoenix ID: 99779, 1 s	sent an email yesterday requesting this but did
not get a confirmation from you	so I am including it aga	ain.

Can we have the following samples taken off hold and run for ETPH. Standard TOT.

#### Soil Samples

Phoenix ID: 99799 6BD 99791 GZA ID: A-1-S-8 (1-2)

GZA ID: A-3-S-18 Note-This sample name should be change as みんりょうらと Phoenix ID: 01299

follows: A-3-S-18 (2-4)

#### **Anthony Trani** Scientist

GZA GeoEnvironmental, Inc. 655 Winding Brook Drive, Suite 402 Glastonbury, Connecticut 06033 (860) 858-3121 (direct) (860) 990-5404 (cell) (860) 652-8590 (fax) anthony.trani@gza.com



**Tuesday, July 23, 2013** 

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: CFC 05.0043369.83 Sample ID#s: BF00861, BF00868

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007

ME Lab Registration #CT-007

NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63

VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 23, 2013

P.O.#:

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOILCollected by:07/02/1311:57Location Code:GZA-PCBReceived by:LB07/03/1314:17Rush Request:StandardAnalyzed by:anal "Rush below"

Rush Request: Standard Analyzed by: see "By" below

Laboratory Data

SDG ID: GBF00861

Phoenix ID: BF00861

Project ID: CFC 05.0043369.83 Client ID: A14-S-22 0-0.25

RL/

		KL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	91		%	07/15/13	JL	E160.3
Extraction for PCB	Completed			07/18/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.36	mg/kg	07/19/13	AW	3540C/8082
PCB-1221	ND	0.36	mg/kg	07/19/13	AW	3540C/8082
PCB-1232	ND	0.36	mg/kg	07/19/13	AW	3540C/8082
PCB-1242	ND	0.36	mg/kg	07/19/13	AW	3540C/8082
PCB-1248	ND	0.36	mg/kg	07/19/13	AW	3540C/8082
PCB-1254	ND	0.36	mg/kg	07/19/13	AW	3540C/8082
PCB-1260	ND	0.36	mg/kg	07/19/13	AW	3540C/8082
PCB-1262	ND	0.36	mg/kg	07/19/13	AW	3540C/8082
PCB-1268	ND	0.36	mg/kg	07/19/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	104		%	07/19/13	AW	30 - 150 %
% TCMX	89		%	07/19/13	AW	30 - 150 %

Page 1 of 4 Ver 2

Project ID: CFC 05.0043369.83 Client ID: A14-S-22 0-0.25

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 23, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BF00861

Page 2 of 4 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 23, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: SOIL Collected by: 07/02/13 12:10 Received by: Location Code: **GZA-PCB** LB 07/03/13 14:17 Analyzed by: see "By" below

Rush Request: Standard

P.O.#:

Laboratory Data SDG ID: GBF00861

Phoenix ID: BF00868

Project ID: CFC 05.0043369.83 Client ID: A14-S-23 0-0.25

RI /

PQL	Units	Date/Time	D.	<b>D</b> (
		Date/Time	Ву	Reference
	%	07/15/13	JL	E160.3
		07/18/13	PP/K	SW3540C
0.36	mg/kg	07/19/13	AW	3540C/8082
0.36	mg/kg	07/19/13	AW	3540C/8082
0.36	mg/kg	07/19/13	AW	3540C/8082
0.36	mg/kg	07/19/13	AW	3540C/8082
0.36	mg/kg	07/19/13	AW	3540C/8082
0.36	mg/kg	07/19/13	AW	3540C/8082
0.36	mg/kg	07/19/13	AW	3540C/8082
0.36	mg/kg	07/19/13	AW	3540C/8082
0.36	mg/kg	07/19/13	AW	3540C/8082
	%	07/19/13	AW	30 - 150 %
	%	07/19/13	AW	30 - 150 %
	0.36 0.36 0.36 0.36 0.36 0.36	0.36 mg/kg	0.36 mg/kg 07/19/13	0.36 mg/kg 07/19/13 AW

Page 3 of 4 Ver 2 Project ID: CFC 05.0043369.83 Client ID: A14-S-23 0-0.25

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 23, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Phoenix I.D.: BF00868

Page 4 of 4 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

July 23, 2013

# QA/QC Data

SDG I.D.: GBF00861

		1.00	1.000	1.00	1.40	MCD	140	%	%
Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits
QA/QC Batch 241301, QC S	ample No: BD99568 (BF0	0861, BF00868)							
Polychlorinated Bipher									
PCB-1016	ND	85	98	14.2	104	97	7.0	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	95	97	2.1	104	104	0.0	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	106	103	106	2.9	105	106	0.9	30 - 150	30
% TCMX (Surrogate Rec)	94	87	101	14.9	96	84	13.3	30 - 150	30
QA/QC Batch 239810, QC S	ample No: BF00875 (BF0	0875)							
Polychlorinated Bipher	nyls - Soil								
PCB-1016	ND	75	83	10.1	70	74	5.6	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	80	83	3.7	78	79	1.3	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	96	90	94	4.3	88	88	0.0	30 - 150	30
% TCMX (Surrogate Rec)	82	80	85	6.1	73	76	4.0	30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

July 23, 2013

Tuesday, July 23, 2013

**Sample Criteria Exceedences Report** 

GBF00861 - GZA-PCB

State: CT

Requested Criteria: None

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: CFC 05.0043369.83 **Project Number:** Laboratory Sample ID(s): BF00861, BF00862, BF00863, BF00864, BF00865, BF00866, BF00867, BF00868, BF00869, BF00870, BF00871, BF00872, BF00873, BF00874, BF00875, BF00876, BF00877, BF00878, BF00879, BF00880, BF00881, BF00882, BF00883, BF00884 **Sampling Date(s):** 7/2/2013 **RCP Methods Used:** ☐ 1311/1312
☐ 6010 ☐ EPH 7000 7196 7470/7471 8081 TO15 **✓** 8082 8270 9010/9012 □ VPH 8151 8260 ETPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) 2. Were all samples received by the laboratory in a condition consistent with that ✓ Yes No. described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No □ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ✓ Yes No. Were these reporting limits met? 5b. ✓ Yes □ No □ NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes No □ NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ✓ Yes □ No □ NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Tuesday, July 23, 2013 Authorized Printed Name: Maryam Taylor Signature: Position: Project Manager







# **RCP Certification Report**

July 23, 2013

**SDG I.D.: GBF00861** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 07/11/13-1 (BF00875)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/11/2013

**Instrument:** Au-ecd3 07/11/13-1 (BF00875)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/11/2013

**Instrument:** <u>Au-ecd6 07/19/13-1 (BF00861, BF00868)</u>

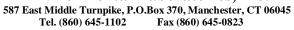
8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/19/2013







# **RCP Certification Report**

July 23, 2013

**SDG I.D.: GBF00861** 

QC (Site Specific)
Sample No: BF00875, QA/QC Batch: 239810
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria. <b>QC (Batch Specific)</b>
Sample No: BD99568, QA/QC Batch: 241301
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

### **Temperature Narration**

The samples in this delivery group were received at  $6^{\circ}$ C. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

Coolant: IPK L/ICE N \* SURCHARGE APPLIES Phoenix Std Report Full Data Package\* 860 246 8220 Tier II Checklist A Email: james hutter Egga cor **₹** Data Package Excel
PDF
GIS/Key Data Format EQuIS □ other Temp(0° °C Pg MA MCP Certification MWRA eSMART Project P.O: Phone #: Fax #: ☐ GW-2 ☐ GW-3 State where samples were collected: ( ☐ GW-1 Other S-2 ۶-۲ Data Delivery: Residential DEC ☐ GW Protection SW Protection GA Mobility GB Mobility CT RCP Cert ☐ I/C DEC Other CS.0047369.83 ☐ Direct Exposure (Residential) 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 and Hather **CHAIN OF CUSTODY RECORD** A Standard Market Standard Mar Other \_ □ GW Ŋ 210 \* SURCHARGE APPLIES 近近 nvoice to: Report to: 3 Days\*
Standard
Other Turnaround:
1 Day\*
2 Days\* Project: 4 Date: 125 Sampled 154 127 270 932) 270 Date: 7/2/13 75 155 1203 7 1202 DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other 2/2/3 Date Sampled Client Sample - Information | Identification Bear May Commonts, Special Requirements or Regulations: Sample Matrix . Please Greeze Samples on holl MM-5-23 (1.75-20) Environmental Laboratories, Inc. ママン22011年 Accepted by: A145-22(0.25-0.5 1214-5-23 (0.25-0.5) RA-5-30.15.1.0 00862 M45-22 (05-0.75) MY-5-22 (0.85-1.0) 00866 Mys-22 (2.353) · Retire Line or spon 50865 M4-5-22(1.75-2.0) MH-523 (0-0.25) をよっといの。光上か A45-22 (0-0.25) Customer Sample The then bern PHOENIX USE ONLY SAMPLE # Relinquished by **E**0890 Customer: Address: 0086 Sampler's Signature

		Cooler: Coolant: IPK	Cooler: Yest No□ t: IPK ( ICE□ N□
	CHAIN OF CUSTODY RECORD 587 East Middle Tumpike, Manchester, CT 06040	Temp COCPg Data Delivery: Fax #	°CPg 2of 4
LILVII VI/X 等數數	Email: info@phoenixlabs.com Fax (860) 645-0823  Client Services (860) 645-8726	Email: James, hutta	-0.15 B
Customer: 672 b) reding Conte Drak Address: 675 b) reding CT 00033	Project: (Fc 05.0047369.82 Report to: James Hadle	Project P.O: Phone #: Fax #:	
Client Sample - Information - Identification Sampler's Signature Date: 7/L//	Analysis Request	O. C.	11000
Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water  SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other	A STATE OF THE PROPERTY OF THE	\$ \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
HOENIX USE ONLY   Customer Sample   Sample   Date   Time   SamPled   Sampl	The state of the s	1	OF ELEGIST CONVINCENTAL
812/C S 65-52.2)			$\Box$
52/1 (23.6.0) 25.5.1 PM 27.6.0 (25.5.0)	< <u> </u>		
(5.25-2.6)	<b>Y</b>		
724 (0.5 4.75)	***		
4737 (8.4.74.1) 42-6-47 (8.0.0)			
(2.25-32)	<u> </u>		
414-2-24(3.75-4.0)	<b>X</b>		
0883 44-27 (0.27-04) / [144			
V KF. 5-25-75-44 P			
	Time: Ra	I.I.	Data Format
Chronical Jan	(Residential)	RCP Cert Microcentingation GW-1	Excel PDF
Market A State of the Country of the	7.3.73 (1/0   Gw	<u>                                     </u>	GIS/Key
ints, Special Requirements or Regulations:			☐ Other Data Package
· Treex Super on hold	1 Day*	Residential DEC S-2	☐ Tier II Checklist ☐ Full Data Package*
atetr cint o. Spp-	3 Days*	Other Other Other	Phoenix Std Report Other
	APPLIES	State where samples were collected:	* SURCHARGE APPLIES

#### Linda - Phoenixlabs

From: Anthony Trani [Anthony.Trani@gza.com]

Sent: Wednesday, July 10, 2013 10:35 AM

To: 'linda@phoenixlabs.com'

Cc: James Hutton

Subject: Commercial Foundry Samples to run

Linda,

Can we please have the following samples taken off hold and run for PCB using manual soxhlet. Standard TOT. The job is Commercial Foundry (43369.83)

#### **Concrete Floor Samples**

GZA ID: A-14-F-17 (0.5-1)	Phoenix ID: 99583
GZA ID: A-14-F-18 (0.5-1)	Phoenix ID: 99584
GZA ID: A-14-F-36 (0.5-1)	Phoenix ID: 99601
GZA ID: A-14-F-12 (0-0.5)	Phoenix ID: 99551
GZA ID: A-14-F-13 (0-0.5)	Phoenix ID: 99552
GZA ID: A-14-F-14 (0-0.5)	Phoenix ID: 99553
GZA ID: A-14-F-19 (0-0.5)	Phoenix ID: 99558
GZA ID: A-14-F-30 (0-0.5)	Phoenix ID: 99569
GZA ID: A-14-F-35 (0-0.5)	Phoenix ID: 99574

#### Soil Samples

Soil Samples		200 1.00 / I
GZA ID: A-14-S24 (0-0.25)	Phoenix ID: 00875	6BF 00861
GZA ID: Ext-6 (0.25-0.5)	Phoenix ID: 00904	
GZA ID: Ext-9 (0.75-1)	Phoenix ID: 00923	
GZA ID: Ext-10 (1.75-2)	Phoenix ID: 00930	
GZA ID: Ext-10(2.75-3)	Phoenix ID: 00931	
GZA ID: EXT-103	Phoenix ID: 99779, 1 s	sent an email yesterday requesting this but did
not get a confirmation from you	so I am including it aga	ain.

Can we have the following samples taken off hold and run for ETPH. Standard TOT.

#### Soil Samples

Phoenix ID: 99799 6BD 99791 GZA ID: A-1-S-8 (1-2)

GZA ID: A-3-S-18 Note-This sample name should be change as みんのうそ Phoenix ID: 01299

follows: A-3-S-18 (2-4)

#### **Anthony Trani** Scientist

GZA GeoEnvironmental, Inc. 655 Winding Brook Drive, Suite 402 Glastonbury, Connecticut 06033 (860) 858-3121 (direct) (860) 990-5404 (cell) (860) 652-8590 (fax) anthony.trani@gza.com

#### Linda - Phoenixlabs

From: Benjamin Graham [Benjamin Graham@gza.com]

**Sent:** Monday, July 15, 2013 3:35 PM

To: Linda - Phoenixlabs

Subject: RE: additional analysis-CFC 43369.83

Linda, here are the samples to run with Phoenix IDs for PCBs by manual soxhlet extraction. Please let me know if you need anything else. Standard TAT. Thanks-

Sample ID	Phoenix ID
A14-F-29 (0-0.5)	99568
A14-F-32 (0-0.5)	99571
A14-F-33 (0-0.5)	99572
A14-F-34 (0-0.5)	99573
A14-F-12 (0.5-1)	99578
A14-F-35 (0.5-1.0)	99600
A14-S-22 (0-0.25)	00861
A14-S-23 (0-0.25)	00868

**From:** Linda - Phoenixlabs [mailto:linda@phoenixlabs.com]

Sent: Monday, July 15, 2013 3:20 PM

To: Benjamin Graham

Subject: RE: additional analysis-CFC 43369.83

Hi Ben

We need the Phoenix ID's numbers please.

Linda

-Linda Chapman

Client Services Representative Phoenix Environmental Laboratories 587 East Middle Turnpike

Manchester, CT 06040

Ph: 1-860-645-1102

This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law.

From: Benjamin Graham [mailto:Benjamin.Graham@qza.com]

**Sent:** Monday, July 15, 2013 3:17 PM

To: Linda - Phoenixlabs

Subject: RE: additional analysis-CFC 43369.83



Monday, July 15, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: CFC 05.0043369.83

Sample ID#s: BF00903 - BF00904, BF00910, BF00917, BF00922 - BF00923, BF00927,

BF00930 - BF00931

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

P.O.#:

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 07/02/13 9:25 Received by: Location Code: **GZA-PCB** SW 07/03/13 14:17 see "By" below

Rush Request: Standard Analyzed by:

Laboratory Data

SDG ID: GBF00903

Phoenix ID: BF00903

CFC 05.0043369.83 Project ID: Client ID: EXT-6 (0-0.25)

RI/

	KL/				
Result	PQL	Units	Date/Time	Ву	Reference
63		%	07/04/13	JL	E160.3
Completed			07/05/13	BB/HB	SW3540C
ND	0.26	mg/kg	07/07/13	AW	3540C/8082
ND	0.26	mg/kg	07/07/13	AW	3540C/8082
ND	0.26	mg/kg	07/07/13	AW	3540C/8082
ND	0.26	mg/kg	07/07/13	AW	3540C/8082
ND	0.26	mg/kg	07/07/13	AW	3540C/8082
1.2	0.26	mg/kg	07/07/13	AW	3540C/8082
ND	0.26	mg/kg	07/07/13	AW	3540C/8082
ND	0.26	mg/kg	07/07/13	AW	3540C/8082
ND	0.26	mg/kg	07/07/13	AW	3540C/8082
75		%	07/07/13	AW	30 - 150 %
81		%	07/07/13	AW	30 - 150 %
	63 Completed  ND 1.2 ND	Result         PQL           63         Completed           ND         0.26           ND         0.26	Result         PQL         Units           63         %           Completed         %           ND         0.26         mg/kg           75         %	Result         PQL         Units         Date/Time           63         %         07/04/13           Completed         07/05/13           ND         0.26         mg/kg         07/07/13           ND         0.26         mg/kg         07/07/13	Result         PQL         Units         Date/Time         By           63         %         07/04/13         JL           Completed         07/05/13         BB/HB           ND         0.26         mg/kg         07/07/13         AW           ND         0.26         mg/kg         07/07/13         AW

Page 1 of 18 Ver 2 Project ID: CFC 05.0043369.83

Client ID: EXT-6 (0-0.25)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BF00903

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOLIDCollected by:07/02/139:27Location Code:GZA-PCBReceived by:SW07/03/1314:17

Rush Request: Standard Analyzed by: see "By" below

P.O.#: Laboratory Data

SDG ID: GBF00903

Phoenix ID: BF00904

Project ID: CFC 05.0043369.83 Client ID: EXT-6 (0.25-0.5)

RL/

		KL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	89		%	07/10/13	JL	E160.3
Extraction for PCB	Completed			07/10/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.36	mg/kg	07/11/13	AW	3540C/8082
PCB-1221	ND	0.36	mg/kg	07/11/13	AW	3540C/8082
PCB-1232	ND	0.36	mg/kg	07/11/13	AW	3540C/8082
PCB-1242	ND	0.36	mg/kg	07/11/13	AW	3540C/8082
PCB-1248	0.97	0.36	mg/kg	07/11/13	AW	3540C/8082
PCB-1254	ND	0.36	mg/kg	07/11/13	AW	3540C/8082
PCB-1260	ND	0.36	mg/kg	07/11/13	AW	3540C/8082
PCB-1262	ND	0.36	mg/kg	07/11/13	AW	3540C/8082
PCB-1268	ND	0.36	mg/kg	07/11/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	115		%	07/11/13	AW	30 - 150 %
% TCMX	91		%	07/11/13	AW	30 - 150 %

Page 3 of 18 Ver 2

Project ID: CFC 05.0043369.83 Client ID: EXT-6 (0.25-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BF00904

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**Analysis Report** 

July 15, 2013

P.O.#:

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 07/02/13 9:00 Received by: Location Code: **GZA-PCB** SW 07/03/13 14:17 Analyzed by: see "By" below

Rush Request: Standard

Laboratory Data

SDG ID: GBF00903

Phoenix ID: BF00910

CFC 05.0043369.83 Project ID: Client ID: EXT-7 (0-0.25)

RI /

		KL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	60		%	07/04/13	JL	E160.3
Extraction for PCB	Completed			07/05/13	BB/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.27	mg/kg	07/07/13	AW	3540C/8082
PCB-1221	ND	0.27	mg/kg	07/07/13	AW	3540C/8082
PCB-1232	ND	0.27	mg/kg	07/07/13	AW	3540C/8082
PCB-1242	ND	0.27	mg/kg	07/07/13	AW	3540C/8082
PCB-1248	ND	0.27	mg/kg	07/07/13	AW	3540C/8082
PCB-1254	0.78	0.27	mg/kg	07/07/13	AW	3540C/8082
PCB-1260	ND	0.27	mg/kg	07/07/13	AW	3540C/8082
PCB-1262	ND	0.27	mg/kg	07/07/13	AW	3540C/8082
PCB-1268	ND	0.27	mg/kg	07/07/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	70		%	07/07/13	AW	30 - 150 %
% TCMX	76		%	07/07/13	AW	30 - 150 %

Page 5 of 18 Ver 2 Project ID: CFC 05.0043369.83

Client ID: EXT-7 (0-0.25)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BF00910

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 15, 2013

P.O.#:

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 07/02/13 9:52 Received by: Location Code: **GZA-PCB** SW 07/03/13 14:17 see "By" below

Rush Request: Standard Analyzed by:

Laboratory Data

SDG ID: GBF00903

Phoenix ID: BF00917

CFC 05.0043369.83 Project ID: Client ID: EXT-8 (0.5-0.75)

RI/

		KL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	80		%	07/04/13	JL	E160.3
Extraction for PCB	Completed			07/05/13	BB/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1221	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1232	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1242	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1248	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1254	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1260	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1262	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1268	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	75		%	07/07/13	AW	30 - 150 %
% TCMX	72		%	07/07/13	AW	30 - 150 %

Page 7 of 18 Ver 2 Project ID: CFC 05.0043369.83 Client ID: EXT-8 (0.5-0.75)

> RL/ Result

Units Date/Time Ву Reference

Phoenix I.D.: BF00917

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

Parameter

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

**PQL** 

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

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**Analysis Report** 

July 15, 2013

P.O.#:

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOLIDCollected by:07/02/1310:03Location Code:GZA-PCBReceived by:SW07/03/1314:17

Rush Request: Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GBF00903

Phoenix ID: BF00922

Project ID: CFC 05.0043369.83 Client ID: EXT-9 (0.5-0.75)

RL/

	KL/				
Result	PQL	Units	Date/Time	Ву	Reference
84		%	07/04/13	JL	E160.3
Completed			07/05/13	BB/HB	SW3540C
ND	0.2	mg/kg	07/07/13	AW	3540C/8082
ND	0.2	mg/kg	07/07/13	AW	3540C/8082
ND	0.2	mg/kg	07/07/13	AW	3540C/8082
ND	0.2	mg/kg	07/07/13	AW	3540C/8082
ND	0.2	mg/kg	07/07/13	AW	3540C/8082
1.2	0.2	mg/kg	07/07/13	AW	3540C/8082
ND	0.2	mg/kg	07/07/13	AW	3540C/8082
ND	0.2	mg/kg	07/07/13	AW	3540C/8082
ND	0.2	mg/kg	07/07/13	AW	3540C/8082
93		%	07/07/13	AW	30 - 150 %
86		%	07/07/13	AW	30 - 150 %
	84 Completed  ND 1.2 ND	Result         PQL           84         Completed           ND         0.2           93	Result         PQL         Units           84         %           Completed         %           ND         0.2         mg/kg           ND         0.2         mg/kg	Result         PQL         Units         Date/Time           84         %         07/04/13           Completed         07/05/13           ND         0.2         mg/kg         07/07/13           ND         0.2         mg/kg         07/07/13	Result         PQL         Units         Date/Time         By           84         %         07/04/13         JL           07/05/13         BB/HB           ND         0.2         mg/kg         07/07/13         AW           ND         0.2         mg/kg         07/07/13         AW

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Project ID: CFC 05.0043369.83 Client ID: EXT-9 (0.5-0.75)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BF00922

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**Analysis Report** 

July 15, 2013

P.O.#:

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOLIDCollected by:07/02/1310:05Location Code:GZA-PCBReceived by:SW07/03/1314:17

Rush Request: Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GBF00903

Phoenix ID: BF00923

Project ID: CFC 05.0043369.83 Client ID: EXT-9 (0.75-1.0)

RL/

		KL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	85		%	07/10/13	JL	E160.3
Extraction for PCB	Completed			07/10/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.39	mg/kg	07/11/13	AW	3540C/8082
PCB-1221	ND	0.39	mg/kg	07/11/13	AW	3540C/8082
PCB-1232	ND	0.39	mg/kg	07/11/13	AW	3540C/8082
PCB-1242	ND	0.39	mg/kg	07/11/13	AW	3540C/8082
PCB-1248	ND	0.39	mg/kg	07/11/13	AW	3540C/8082
PCB-1254	ND	0.39	mg/kg	07/11/13	AW	3540C/8082
PCB-1260	ND	0.39	mg/kg	07/11/13	AW	3540C/8082
PCB-1262	ND	0.39	mg/kg	07/11/13	AW	3540C/8082
PCB-1268	ND	0.39	mg/kg	07/11/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	65		%	07/11/13	AW	30 - 150 %
% TCMX	78		%	07/11/13	AW	30 - 150 %

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Project ID: CFC 05.0043369.83 Client ID: EXT-9 (0.75-1.0)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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July 15, 2013

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Phoenix I.D.: BF00923

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**Analysis Report** 

July 15, 2013

P.O.#:

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: 07/02/13 9:40 Received by: Location Code: **GZA-PCB** SW 07/03/13 14:17 see "By" below

Rush Request: Standard Analyzed by:

Laboratory Data

SDG ID: GBF00903

Phoenix ID: BF00927

CFC 05.0043369.83 Project ID: Client ID: EXT-10 (0.25-0.5)

RI/

		KL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	83		%	07/04/13	JL	E160.3
Extraction for PCB	Completed			07/05/13	BB/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1221	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1232	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1242	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1248	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1254	0.45	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1260	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1262	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
PCB-1268	ND	0.2	mg/kg	07/07/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	78		%	07/07/13	AW	30 - 150 %
% TCMX	78		%	07/07/13	AW	30 - 150 %

Page 13 of 18 Ver 2 Project ID: CFC 05.0043369.83 Client ID: EXT-10 (0.25-0.5)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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July 15, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BF00927

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**Analysis Report** 

July 15, 2013

P.O.#:

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOLIDCollected by:07/02/139:45Location Code:GZA-PCBReceived by:SW07/03/1314:17

Rush Request: Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GBF00903

Phoenix ID: BF00930

Project ID: CFC 05.0043369.83 Client ID: EXT-10 (1.75-2.0)

RL/

		KL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	83		%	07/10/13	JL	E160.3
Extraction for PCB	Completed			07/10/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.4	mg/kg	07/11/13	AW	3540C/8082
PCB-1221	ND	0.4	mg/kg	07/11/13	AW	3540C/8082
PCB-1232	ND	0.4	mg/kg	07/11/13	AW	3540C/8082
PCB-1242	ND	0.4	mg/kg	07/11/13	AW	3540C/8082
PCB-1248	ND	0.4	mg/kg	07/11/13	AW	3540C/8082
PCB-1254	ND	0.4	mg/kg	07/11/13	AW	3540C/8082
PCB-1260	ND	0.4	mg/kg	07/11/13	AW	3540C/8082
PCB-1262	ND	0.4	mg/kg	07/11/13	AW	3540C/8082
PCB-1268	ND	0.4	mg/kg	07/11/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	66		%	07/11/13	AW	30 - 150 %
% TCMX	75		%	07/11/13	AW	30 - 150 %

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Project ID: CFC 05.0043369.83 Client ID: EXT-10 (1.75-2.0)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 15, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BF00930

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**Analysis Report** 

July 15, 2013

P.O.#:

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample InformationCustody InformationDateTimeMatrix:SOLIDCollected by:07/02/139:49Location Code:GZA-PCBReceived by:SW07/03/1314:17

Rush Request: Standard Analyzed by: see "By" below

**Laboratory Data** 

SDG ID: GBF00903

Phoenix ID: BF00931

Project ID: CFC 05.0043369.83 Client ID: EXT-10 (2.75-3.0)

RL/

		KL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	85		%	07/10/13	JL	E160.3
Extraction for PCB	Completed			07/10/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.38	mg/kg	07/11/13	AW	3540C/8082
PCB-1221	ND	0.38	mg/kg	07/11/13	AW	3540C/8082
PCB-1232	ND	0.38	mg/kg	07/11/13	AW	3540C/8082
PCB-1242	ND	0.38	mg/kg	07/11/13	AW	3540C/8082
PCB-1248	ND	0.38	mg/kg	07/11/13	AW	3540C/8082
PCB-1254	ND	0.38	mg/kg	07/11/13	AW	3540C/8082
PCB-1260	ND	0.38	mg/kg	07/11/13	AW	3540C/8082
PCB-1262	ND	0.38	mg/kg	07/11/13	AW	3540C/8082
PCB-1268	ND	0.38	mg/kg	07/11/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	68		%	07/11/13	AW	30 - 150 %
% TCMX	75		%	07/11/13	AW	30 - 150 %

Page 17 of 18 Ver 2

Project ID: CFC 05.0043369.83 Client ID: EXT-10 (2.75-3.0)

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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July 15, 2013

Reviewed and Released by: Maryam Taylor, Project Manager

Phoenix I.D.: BF00931

Page 18 of 18 Ver 2



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

## QA/QC Data

July 15, 2013		QA/QC Da		SDO	903				
Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 238963, QC S	sample No: BF00849 (B	F00903, BF00910)							
Polychlorinated Biphe		,							
PCB-1016	ND	85			82	90	9.3	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	83			79	88	10.8	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	80	78			73	82	11.6	30 - 150	30
% TCMX (Surrogate Rec)	91	90			90	99	9.5	30 - 150	30
QA/QC Batch 239810, QC S	ample No: BF00875 (B	F00904, BF00923, BF0	0930, BF	<del>-</del> 00931)					
Polychlorinated Biphe	nyls - Solid								
PCB-1016	ND	75	83	10.1	70	74	5.6	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	80	83	3.7	78	79	1.3	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	96	90	94	4.3	88	88	0.0	30 - 150	30
% TCMX (Surrogate Rec)	82	80	85	6.1	73	76	4.0	30 - 150	30
QA/QC Batch 238984, QC S	•	F00917, BF00922, BF0	0927, BF	F00933)					
Polychlorinated Biphe	<u>nyls - Solid</u>								
PCB-1016	ND	79	83	4.9	90	93	3.3	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	103	95	8.1	109	107	1.9	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	106	115	116	0.9	115	111	3.5	30 - 150	30
% TCMX (Surrogate Rec)	82	78	83	6.2	91	96	5.3	30 - 150	30

# QA/QC Data

SDG I.D.: GBF00903

% RPD % LCS LCSD LCS MS MSD MS Rec Blank % RPD % % RPD Limits Limits % Parameter

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

July 15, 2013

Monday, July 15, 2013

**Sample Criteria Exceedences Report GBF00903 - GZA-PCB** 

State: CT

Requested Criteria: None

RLAnalysis SampNo Acode Phoenix Analyte Criteria Result RL Criteria Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page 1 of 1

<sup>\*\*\*</sup> No Data to Display \*\*\*

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: CFC 05.0043369.83 **Project Number:** Laboratory Sample ID(s): BF00903, BF00904, BF00905, BF00906, BF00907, BF00908, BF00909, BF00910, BF00911, BF00912, BF00913, BF00914, BF00915, BF00916, BF00917, BF00918, BF00919, BF00920, BF00921, BF00922, BF00923, BF00924, BF00925, BF00926, BF00927, BF00928, BF00929, BF00930, BF00931, BF00932, BF00933 **Sampling Date(s):** 7/2/2013 **RCP Methods Used:** 1311/1312 6010 7000 7196 7470/7471 8081 EPH TO15 **✓** 8082 8270 ETPH 9010/9012 8151 8260 For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? 1a. ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) Were all samples received by the laboratory in a condition consistent with that 2. ✓ Yes No. described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No  $\square$  NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ✓ Yes □ No Were these reporting limits met? 5b. ✓ Yes □ No  $\square$  NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No  $\square$  NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ✓ Yes □ No □ NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Monday, July 15, 2013 Authorized Printed Name: Greg Lawrence Signature:

Position: Assistant Lab Director







# **RCP Certification Report**

July 15, 2013

**SDG I.D.: GBF00903** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 07/11/13-1 (BF00904, BF00923, BF00930, BF00931)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/11/2013

**Instrument:** <u>Au-ecd24 07/07/13-1 (BF00917)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/7/2013

**Instrument:** Au-ecd3 07/07/13-1 (BF00903, BF00910, BF00917, BF00922, BF00927, BF00933)

8082 Narration:

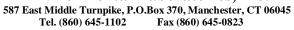
The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/7/2013









# **RCP** Certification Report

July 15, 2013

**SDG I.D.: GBF00903** 

QC (Site Specific)
Sample No: BF00917, QA/QC Batch: 238984
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria. <b>QC (Batch Specific)</b>
Sample No: BF00849, QA/QC Batch: 238963
All LCS recoveries were within 40 - 140 with the following exceptions: None.
Sample No: BF00875, QA/QC Batch: 239810
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

## **Temperature Narration**

The samples were received at 6C with cooling initiated. (Note acceptance criteria is above freezing up to  $6^{\circ}C)$ 

Cooler: Yea No Coolant: IPK W ICE N

Temp $\mathcal{C}^{O} \circ_{C} Pg \not = \emptyset$	Data Delivery:	X Email: James, huttan Egzasan	Project P.O:	Phone #: 860 286 89cm			10001/2001	1000/140/20/20/20/20/	1,00 / 10 / 10 / 10 / 10 / 10 / 10 / 10	082 1000	\$ 10 kg 10 k											MAC Certification	GW-1		GW-3 EQUIS.	Dat	S-2 Tier II Checklist S-3 Tier II Data Package*	MWRA eSMART	ected: ( T . SURCHARGE APPLIES
CHAIN OF CUSTODY RECORD	lanchester, CT 06040	Email: info@phoenixlabs.com Fax (860) 645-0823  Client Services (860) 645-8726	Project: (FC 07, 0943369.83	0	Invoice to:		Analysis Request						<i>y</i>	 	<b>X</b>	X		×	×	X	×	Time: RI	(Residential)	SW Protection	3.13 417 Other	Turnaround:	1 Day*		Other State where samples were collected:
CHAIN	<b>DHOF</b> /IIX	Email Email Email Ories, Inc.	Customer: (724	(estable de Rombe Date	Glaster bury CJ 06033	Client Sample - Informetion - Identification	Sampler's Signature Date: 7/2/18 R		ste Water	:Sludge S=Soil/Solid W=Wipe O=Other	ole Sample Date Time	3 8 L-C (0-0.12) Saniplea Saniplea			(COOC) [24-6(1.25-2.0)   0933	6(225-3.0)	COC/10 2x1-7 (0-0.25)   0500 X	(0.15-0.5)	(5x.0.7.0)t-43	0.7-2-1.0	1000   N   N   (0.2-20.1) = +3   H   DOC)	Retirrquished by: Accepted by:	10/1 por sign 10/1	The state of the s		Comments, Special Requirements or Regulations:	· Freeze Sumples on hold	Octobra Civit O. Sport	ns.

			Coolant: IPK	er: Yes No
5	<b>CHAIN OF CUSTODY RECORD</b>	RECORD	, O <sub>duel</sub>	°C Pg Z of S
BHOH S87 East Mi	587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040	Manchester, CT 06040	Contact Options:	otions:
Environmental Laboratories, Inc.	Email: info@phoenixlabs.com Fax (860) 64 Client Services (860) 645-8726	Fax (860) 645-0823	.e. ::	h. H. And
Customer: (-24	Project:	65 pr/22.983	Project P.O.	1
(C)		Tarker .	This s	This section MUST be
3	19	ہدا	00	completed with
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Client Sample - Information - Identification				
Sampler's Signature	Analysis		O.S.	14000, 2080
ode:  Since Water GW=Ground Water SW=Surface Mater	Taylor Isanhau		40 40 TOUR	illogs, illogs, og,
Sediment SL=Sludge S=Soil SD=Soild W=Wipe	The Same		S. S. J. J. G. J.	
PHOENIX USE ONLY Customer Sample Sample Date Time SAMPI F# Identification Matrix Sampled Sampled	MAT STO		\$ 600 10 10 10 10 10 10 10 10 10 10 10 10 1	The die of the state of the sta
> Ext-76 2x-3.0\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			X X X X	
(04/26)+	X			
Ext-8 (0.5-0.7)	<b>X</b>			
00918 (4-8(0.75-1.0)   0953	Z			
00919 Ext8(1.75.20) 0955	X			
00920 CA-8(225-3.3) 0957	X			
(CCG2) 2x+2(3,75-4.0) (600	X			
009335x49(0,5-0.75) (1003	<b>×</b>			
100/30 54 90 8 328 10 Van	7			
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There supers on Holy	2 Days*	Residential DEC		☐ Full Data Package*
· Detection Cint O. Span	☐ 3 Days* Standard	Other	☐ MWRA eSMART☐ Other	Phoenix Std Report Other
	✓☐ Other *SURCHARGE APPLIES	State where samples were collected:	lected:	* SURCHARGE APPLIES

Cooler: Yes No	გა <b>გ</b> მ ე .	Contact Options:	Muster 6979. w		completed with	Bottle Quantities.	14001	J. (400, (400.)	THOSE STORY TO STATE OF THE STA								Data Format  Excel	GIS/Key	Data Package Tier II Checklist	Full Data Package*  Phoenix Std Report	* SURCHARGE APPLIES
Coolant: IF	$O$ dwe $_{ m L}$		Phone:	Project P.O.		→ BC	O ST	\$ \$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	2 8 16 15 16 16 16 16 16 16 16 16 16 16 16 16 16		)						W □ [	ion	S-1 S-2 DEC S-2		collected:
	CORD	chester, CT 06040	Fax (860) 645-0823 <b>645-8726</b>	58.672Chao.	The state of the s												RI Direct Exposure KRCP Cert	GW Catection Category Sw Protection Category Cat		I/C DEC	State where samples were collected:
	<b>CHAIN OF CUSTODY RECORD</b>	37	Email: info@phoenixlabs.com Fax (860) 64 Client Services (860) 645-8726	Project: CFC 05	Invoice to:		Analysis Regulast	The state of the s	, ,		X	×	- - - - -	X			Is MIS	0111 C/6		2 Days*	EAPPLIES
	CHAII	587 East Middle	Emall: info@ Clie	7.70	76033		ate: 7/2/13	W=Waste Water W=Wipe	Date Time Sampled Sampled		1260	2360	0945	1560	X / / / /		Date:				
			oratories, Inc.				Client Sample - Information - Identification	Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water M RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid OIL=Oil B=Bulk L=Liquid	Customer Sample Sample Identification Matrix	(0.22-05)	0 (0.5-075)	0.75	(0/-75-7-0)	$\sim$	ath Bur Marte (Cot 3.0) V		Graffy 3m	Kilous I	Requirements or Regulations:	7 0.5 1pm	
		PHOENI	Environmental Laboratories,	Customer: GZA Address: GZA	त्युं <u>।</u>		Sampler's Signature	Matrix Code:  DW=Drinking Water GW=Gr RW=Raw Water SE=Sedimer OIL=Oil B=Bulk L=Liquid	PHOENIX USE ONLY Cust SAMPLE # 1d	7	200	\$ 0 \$ 0	00931 24-10	2 Ext-	00933 (24CB		Relinquished by	and an	Comments, Special Requirements or Regulations	لے ک	



Wednesday, July 10, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY COMPANIES

Sample ID#s: BF00934 - BF00936

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 10, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: ΑT 07/02/13 8:50 Location Code: **GZA-PCB** Received by: LB 07/03/13 14:17 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43367.83

Laboratory Data

SDG ID: GBF00934

Phoenix ID: BF00934

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: EXT-104

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 77 % 07/04/13 JL E160.3 Extraction for PCB Completed 07/05/13 BB/HB SW3540C PCB (Soxhlet) PCB-1016 ND 0.21 mg/kg 07/07/13 ΑW 3540C/8082 PCB-1221 ND 0.21 mg/kg 07/07/13 AW 3540C/8082 3540C/8082 ND 07/07/13 ΑW PCB-1232 0.21 mg/kg PCB-1242 ND 0.21 07/07/13 ΑW 3540C/8082 mg/kg ND 0.21 07/07/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.21 mg/kg 07/07/13 AW 07/07/13 3540C/8082 PCB-1260 ND 0.21 ΑW mg/kg PCB-1262 ND 0.21 mg/kg 07/07/13 ΑW 3540C/8082 ND 0.21 07/07/13 ΑW 3540C/8082 PCB-1268 mg/kg **QA/QC Surrogates** % DCBP 78 % 07/07/13 AW 30 - 150 % % TCMX 81 % 07/07/13 30 - 150 %

Page 1 of 6 Ver 1

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: EXT-104

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 10, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BF00934

Page 2 of 6 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 10, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: ΑT 07/02/13 9:55 **GZA-PCB** Received by: Location Code: LB 07/03/13 14:17 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43367.83

Laboratory Data

SDG ID: GBF00934

Phoenix ID: BF00935

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: EXT-105

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 81 % 07/04/13 JL E160.3 Extraction for PCB Completed 07/05/13 BB/HB SW3540C PCB (Soxhlet) PCB-1016 ND 0.2 mg/kg 07/08/13 ΑW 3540C/8082 PCB-1221 ND 0.2 mg/kg 07/08/13 AW 3540C/8082 3540C/8082 ND 07/08/13 ΑW PCB-1232 0.2 mg/kg PCB-1242 ND 0.2 07/08/13 ΑW 3540C/8082 mg/kg 0.2 07/08/13 AW 3540C/8082 PCB-1248 1.8 mg/kg 3540C/8082 PCB-1254 ND 0.2 mg/kg 07/08/13 AW 07/08/13 3540C/8082 PCB-1260 ND 0.2 ΑW mg/kg PCB-1262 ND 0.2 mg/kg 07/08/13 ΑW 3540C/8082 ND 07/08/13 ΑW 3540C/8082 PCB-1268 0.2 mg/kg **QA/QC Surrogates** % DCBP 99 % 07/08/13 AW 30 - 150 % % TCMX 84 % 07/08/13 30 - 150 %

Page 3 of 6 Ver 1

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: EXT-105

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 10, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BF00935

Page 4 of 6 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 10, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOIL Collected by: ΑT 07/02/13 0:00 Location Code: **GZA-PCB** Received by: LB 07/03/13 14:17 Rush Request: Standard Analyzed by: see "By" below

Rusii Request. Standard

P.O.#: 43367.83

Laboratory Data SDG ID: GBF00934

Phoenix ID: BF00936

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: EXT-106 4-4.25

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 83 % 07/04/13 JL E160.3 Extraction for PCB Completed 07/05/13 BB/HB SW3540C PCB (Soxhlet) PCB-1016 ND 0.2 mg/kg 07/07/13 ΑW 3540C/8082 PCB-1221 ND 0.2 mg/kg 07/07/13 AW 3540C/8082 3540C/8082 ND 07/07/13 ΑW PCB-1232 0.2 mg/kg PCB-1242 ND 0.2 07/07/13 ΑW 3540C/8082 mg/kg ND 0.2 07/07/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 ND 0.2 mg/kg 07/07/13 AW 07/07/13 3540C/8082 PCB-1260 ND 0.2 AW mg/kg PCB-1262 ND 0.2 mg/kg 07/07/13 AW 3540C/8082 ND 07/07/13 ΑW 3540C/8082 PCB-1268 0.2 mg/kg **QA/QC Surrogates** % DCBP 68 % 07/07/13 AW 30 - 150 % % TCMX 69 % 07/07/13 30 - 150 %

Page 5 of 6 Ver 1

Client ID: EXT-106 4-4.25

RL/

Parameter Result PQL Units Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 10, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Phoenix I.D.: BF00936

Page 6 of 6 Ver 1



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

## QA/QC Report

July 10, 2013

### QA/QC Data

SDG I.D.: GBF00934

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits
QA/QC Batch 238984, QC	Sample No: BF00917 (BF00	)934, BF00935, BF00	936)						
Polychlorinated Biphe	enyls - Soil								
PCB-1016	ND	79	83	4.9	90	93	3.3	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	103	95	8.1	109	107	1.9	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	106	115	116	0.9	115	111	3.5	30 - 150	30
% TCMX (Surrogate Rec)	82	78	83	6.2	91	96	5.3	30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis Shiller, Laboratory Director

July 16, 2013

Wednesday, July 10, 2013

Sample Criteria Exceedences Report
GBF00934 - GZA-PCB

Page 1 of 1

State: CT

Requested Criteria: GAM, RC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
BF00935	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	1800	200	1000	1000	ug/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

### Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Labo	Laboratory Name: Phoenix Environmental Labs, Inc. Client: GZA-PCB												
Proje	ect Location: COMMERCIAL FOUNDRY COM Project Number:												
Labo	pratory Sample ID(s): BF00934, BF00935, BF00936, BF00937, BF00938												
Sam	pling Date(s): 7/2/2013												
RCP	Methods Used:												
13	311/1312	EPH	☐ TO15										
<b>✓</b> 80	82	☐ VPH											
1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	✓ Yes	□ No										
1a.	▼ res □ No												
1b.													
2.	2. Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?   ✓ Yes □ No												
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?  ✓ Yes □ No □ NA												
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	✓ Yes	□ No										
5a.	Were reporting limits specified or referenced on the chain-of-custody?	✓ Yes	□ No										
5b.	Were these reporting limits met?	✓ Yes	□ No □ NA										
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	✓ Yes	□ No □ NA										
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	□ Yes	✓ No □ NA										
Note:	Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".												
and	I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.												
	horized pature:  Date: Wedne		y 10, 2013										
Jig	Signature: Printed Name: Greg Lawrence												







## **RCP Certification Report**

July 10, 2013

**SDG I.D.: GBF00934** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 07/08/13-1 (BF00935)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/8/2013

**Instrument:** Au-ecd3 07/07/13-1 (BF00934, BF00935, BF00936)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/7/2013

#### QC (Batch Specific)

----- Sample No: BF00917, QA/QC Batch: 238984 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**

The samples were received at 6C with cooling initiated. (Note acceptance criteria is above freezing up to 6°C)



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

July 10, 2013

**SDG I.D.: GBF00934** 

Cooler: Yes No	]_ 6	Contact Options:	JHON @ 329. COM	43069. 87	This section MUST be	Bottle Quantities.	* * *	14007	140000	(lge)	100 8 100 8 10 10 10 10 10 10 10 10 10 10 10 10 10	十										<u>Data Format</u> ☐ Excel	i X	☐ GIS/key ☐ EQuIS	Data Package	☐ Tier II Checklist ☐ Full Data Package*	Phoenix Std Report Other	* SURCHARGE APPLIES
Coolant: I	Temp	Fax: Phone:	Email: Jen-17.	Project P.O.	- This	' ĕ	•	O. P.	to Doley		10 17 6 18 18 18 18 18 18 18 18 18 18 18 18 18											MCP Certification	☐ Gw-1	GW-2 GW-3	S-1	8-3 	☐ MWRA eSMART ☐ Other	cted: C7
			X	1 Company		The state of the s					145 163 163 163 163 163 163 163 163 163 163					1		e ,				RCP Cert	K GW Protection	SW Protection	GB Mobility	Residential DEC	Other	State where samples were collected:
	OY RECORD	587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823	() 645-8726	<u> </u>	14 14 P	1									مدَ	<b>₩</b>						Nirect Exposure	(Residential)	ow C			,	State where s
	<b>CHAIN OF CUSTODY RECORD</b>	East Middle Turnpike, P.O. Box 3 Email: info@phoenixlabs.com	Client Services (860) 645-8726	. I .	Report to: Jerest Invoice to: Trans			Analysis	Service of the servic	1 80 × 10 × 10 × 10 × 10 × 10 × 10 × 10	TO THE STATE OF TH				XFERRE	X May See			-			3-13 1110	プロ かび	_	Turnaround:	1 Day* 2 Days*	3 Days* Standard	Other SURCHARGE APPLIES
	CHAIN	i87 East Middle T Email: info@	Clie	(4)	x 102			1/13 A	Water		Time	X ago	Ofs X	X	<b>X</b>	Wg.						) alte	1	. ( )	Turna			□ s Ins *
		ις)		000	V W V		fication	Date: 7	SW=Surface Water WW=Waste Water	=Solid <b>W</b> =Wipe	ole Date	ļ.,	צודלר	3/12/C	5/12/13	בו/ב/כ						4						
			1163, 1160.	Rail	180 C	*	ormation - Identi	2	er SW=Surface	<b>⊒S</b> ∥Soll SD	nple Sample		<i>ا</i> م	5 (52/4-4)	2 (25.2-5)	4 0-563	- :				Accepted by:	Syled by.			egulations:	(	با / يس كرا با	DIO
		OEINIX	ur racoraro	62A	Clerton (S)		Client Samule - Information - Identification	of Py Tr	GW=Ground Wate	=Sediment SL=Slu Liquid	Customer Sample Identification	Ex)- 104	欧+ 10S	901-	EXTIGE (5-3	Ext-106 (S.)					7	1	1		Requirements or R	Sextlet	) : q:~!/	1-0 sldm
		PHOHNIX STATES IN STATES I	anomno namo	Customer:	Address.	1		Sampler's Signature	Matrix Code:  DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste	RW=Raw Water SE=Sedin OIL=Oil B=Bulk L=Liquid	PHOENIX USE ONLY SAMPLE #		58600	95,000	12600	00938					Relinquished by	Cotte Co		3	Comments, Special Requirements or Regulations	I man Ve	2, detailer limit : Ois my/ly	S +178 20



**Thursday, July 11, 2013** 

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY COMPANIES

Sample ID#s: BF01274 - BF01282

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 11, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 9:20 Received by: Location Code: **GZA-PCB** SW 07/03/13 15:59 Analyzed by: Rush Request: Standard see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBF01274

Phoenix ID: BF01274

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-PW-7 (4)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/05/13	BB/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.31	mg/kg	07/08/13	AW	3540C/8082
PCB-1221	ND	0.31	mg/kg	07/08/13	AW	3540C/8082
PCB-1232	ND	0.31	mg/kg	07/08/13	AW	3540C/8082
PCB-1242	ND	0.31	mg/kg	07/08/13	AW	3540C/8082
PCB-1248	*	0.31	mg/kg	07/08/13	AW	3540C/8082
PCB-1254	*	0.31	mg/kg	07/08/13	AW	3540C/8082
PCB-1260	*	0.31	mg/kg	07/08/13	AW	3540C/8082
PCB-1262	ND	0.31	mg/kg	07/08/13	AW	3540C/8082
PCB-1268	ND	0.31	mg/kg	07/08/13	AW	3540C/8082
Total PCBs	2	0.31	mg/kg	07/08/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	80		%	07/08/13	AW	30 - 150 %
% TCMX	75		%	07/08/13	AW	30 - 150 %

Page 1 of 18 Ver 1

Client ID: A-14-PW-7 (4)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01274

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 11, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Page 2 of 18 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 11, 2013

FOR: Attn: Mr. Jim Hutton

> GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 10:00 Received by: Location Code: **GZA-PCB** SW 07/03/13 15:59 Analyzed by: Rush Request: Standard see "By" below

**Laboratory Data** 

SDG ID: GBF01274

Phoenix ID: BF01275

COMMERCIAL FOUNDRY COMPANIES Project ID:

43369.83

Client ID: A-14-PW-7 (10)

P.O.#:

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/05/13	BB/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	2.4	mg/kg	07/08/13	AW	3540C/8082
PCB-1221	ND	2.4	mg/kg	07/08/13	AW	3540C/8082
PCB-1232	ND	2.4	mg/kg	07/08/13	AW	3540C/8082
PCB-1242	ND	2.4	mg/kg	07/08/13	AW	3540C/8082
PCB-1248	*	2.4	mg/kg	07/08/13	AW	3540C/8082
PCB-1254	*	2.4	mg/kg	07/08/13	AW	3540C/8082
PCB-1260	ND	2.4	mg/kg	07/08/13	AW	3540C/8082
PCB-1262	ND	2.4	mg/kg	07/08/13	AW	3540C/8082
PCB-1268	ND	2.4	mg/kg	07/08/13	AW	3540C/8082
Total PCBs	12	2.4	mg/kg	07/08/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/08/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/08/13	AW	30 - 150 %

Page 3 of 18 Ver 1

Client ID: A-14-PW-7 (10)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01275

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

July 11, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Page 4 of 18 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 11, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 10:10 Received by: Location Code: **GZA-PCB** SW 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBF01274

Phoenix ID: BF01276

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-PW-7 (15)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.57	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	0.57	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	0.57	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	0.57	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	*	0.57	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	*	0.57	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	*	0.57	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	0.57	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	0.57	mg/kg	07/09/13	AW	3540C/8082
Total PCBs	5.2	0.57	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	107		%	07/09/13	AW	30 - 150 %
% TCMX	104		%	07/09/13	AW	30 - 150 %

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Client ID: A-14-PW-7 (15)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01276

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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Phyllis Shiller, Laboratory Director

July 11, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260.



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**Analysis Report** 

July 11, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 9:40 Received by: Location Code: **GZA-PCB** SW 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

Laboratory Data

SDG ID: GBF01274

Phoenix ID: BF01277

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-PW-8 (4)

Parameter	Result	RL/ PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed	·	,0	07/07/13		SW3540C
PCB (Soxhlet)						
PCB-1016	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	*	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	*	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
Total PCBs	15	2.5	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/09/13	AW	30 - 150 %

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Client ID: A-14-PW-8 (4)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01277

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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Phyllis Shiller, Laboratory Director

July 11, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Page 8 of 18 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

July 11, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 10:40 Received by: Location Code: **GZA-PCB** SW 07/03/13 15:59 Analyzed by: Rush Request: Standard see "By" below

P.O.#: 43369.83

Laboratory Data

SDG ID: GBF01274

Phoenix ID: BF01278

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-PW-8 (10)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	*	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	*	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
Total PCBs	8.7	2.5	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/09/13	AW	30 - 150 %

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Client ID: A-14-PW-8 (10)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01278

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 11, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

July 11, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 10:50 Received by: Location Code: **GZA-PCB** SW 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBF01274

Phoenix ID: BF01279

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-PW-8 (15)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	2.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	2.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	2.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	2.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	*	2.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	*	2.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	ND	2.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	2.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	2.6	mg/kg	07/09/13	AW	3540C/8082
Total PCBs	7.3	2.6	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/09/13	AW	30 - 150 %

Page 11 of 18 Ver 1

Client ID: A-14-PW-8 (15)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01279

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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Phyllis Shiller, Laboratory Director

July 11, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Page 12 of 18 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

July 11, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 11:00 Received by: Location Code: **GZA-PCB** SW 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBF01274

Phoenix ID: BF01280

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-PW-9 (4)

Parameter	Result	RL/ PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	2.7	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	2.7	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	2.7	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	2.7	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	*	2.7	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	*	2.7	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	ND	2.7	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	2.7	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	2.7	mg/kg	07/09/13	AW	3540C/8082
Total PCBs	17	2.7	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/09/13	AW	30 - 150 %

Page 13 of 18 Ver 1

Client ID: A-14-PW-9 (4)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01280

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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Phyllis Shiller, Laboratory Director

July 11, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Page 14 of 18 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



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**Analysis Report** 

July 11, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 07/03/13 11:10 **GZA-PCB** Received by: SW Location Code: 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBF01274

Phoenix ID: BF01281

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-PW-9 (10)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 100 % 07/05/13 LB E160.3 1 Extraction for PCB Completed 07/07/13 TT/HB SW3540C PCB (Soxhlet) PCB-1016 ND 0.57 mg/kg 07/09/13 ΑW 3540C/8082 PCB-1221 ND 0.57 mg/kg 07/09/13 AW 3540C/8082 3540C/8082 ND 07/09/13 ΑW PCB-1232 0.57 mg/kg PCB-1242 ND 07/09/13 ΑW 3540C/8082 0.57 mg/kg 07/09/13 AW 3540C/8082 PCB-1248 0.57 mg/kg 3540C/8082 PCB-1254 0.57 mg/kg 07/09/13 AW 3540C/8082 PCB-1260 0.57 07/09/13 AW mg/kg PCB-1262 ND 0.57 mg/kg 07/09/13 AW 3540C/8082 PCB-1268 ND 07/09/13 ΑW 3540C/8082 0.57 mg/kg 3540C/8082 0.57 07/09/13 AW Total PCBs 3.4 mg/kg **QA/QC Surrogates** % DCBP 112 % 07/09/13 AW 30 - 150 % 106 07/09/13 ΑW 30 - 150 % % TCMX %

Page 15 of 18 Ver 1

Client ID: A-14-PW-9 (10)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01281

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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Phyllis Shiller, Laboratory Director

July 11, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Page 16 of 18 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 11, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 11:20 Received by: Location Code: **GZA-PCB** SW 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

Laboratory Data

SDG ID: GBF01274

Phoenix ID: BF01282

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-14-PW-9 (15)

Parameter	Result	RL/ PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.36	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	0.36	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	0.36	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	0.36	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	*	0.36	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	*	0.36	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	*	0.36	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	0.36	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	0.36	mg/kg	07/09/13	AW	3540C/8082
Total PCBs	3	0.36	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	117		%	07/09/13	AW	30 - 150 %
% TCMX	107		%	07/09/13	AW	30 - 150 %

Page 17 of 18 Ver 1

Client ID: A-14-PW-9 (15)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01282

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 11, 2013

Reviewed and Released by: Rashmi Makol, Project Manager

Page 18 of 18 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260.



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## QA/QC Report

July 11, 2013

### QA/QC Data

SDG I.D.: GBF01274

		LCS	LCSD	LCS	MS	MSD	MS	% Rec	% RPD
Parameter	Blank	%	%	RPD	%	%	RPD	Limits	Limits
QA/QC Batch 238984, QC Sample No: BF00917 (BF01274, BF01275)									
Polychlorinated Biphe									
PCB-1016	ND	79	83	4.9	90	93	3.3	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	103	95	8.1	109	107	1.9	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	106	115	116	0.9	115	111	3.5	30 - 150	30
% TCMX (Surrogate Rec)	82	78	83	6.2	91	96	5.3	30 - 150	30
QA/QC Batch 239053, QC S	ample No: BF02167 (BF	01276, BF01277, BF01	1278, BF	01279,	BF012	280, BF	01281,	BF01282)	
Polychlorinated Biphe	nyls - Solid								
PCB-1016	ND	84	88	4.7	87			40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	87	92	5.6	96			40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	95	87	92	5.6	91			30 - 150	30
% TCMX (Surrogate Rec)	91	90	97	7.5	96			30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

July 11, 2013

## GBF01274 - GZA-PCB

Page 1 of 2

Requested Criteria: GAM, GBM, RC State: CT

	State: CT		ODI 01214 OZ/(1 OZ				RL	Analysis
SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
BF01274	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	2000	310	1000	1000	ug/Kg
BF01275	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01275	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01275	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01275	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01275	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	2400	1000	1000	ug/Kg
BF01275	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	2400	1000	1000	ug/Kg
BF01275	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01275	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01275	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01275	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	12000	2400	1000	1000	ug/Kg
BF01276	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	5200	570	1000	1000	ug/Kg
BF01277	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01277	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01277	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01277	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01277	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	2500	1000	1000	ug/Kg
BF01277	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	2500	1000	1000	ug/Kg
BF01277	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01277	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01277	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01277	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	15000	2500	1000	1000	ug/Kg
BF01278	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01278	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01278	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01278	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01278	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	2500	1000	1000	ug/Kg
BF01278	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	2500	1000	1000	ug/Kg
BF01278	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01278	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01278	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01278	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	8700	2500	1000	1000	ug/Kg
BF01279	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2600	1000	1000	ug/Kg
BF01279	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2600	1000	1000	ug/Kg
BF01279	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2600	1000	1000	ug/Kg
BF01279	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2600	1000	1000	ug/Kg
BF01279	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	2600	1000	1000	ug/Kg
BF01279	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	2600	1000	1000	ug/Kg

Thursday, July 11, 2013 Sample Criteria Exceedences Report

#### GBF01274 - GZA-PCB

Requested Criteria: GAM, GBM, RC State: CT

							RL	Analysis
SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
BF01279	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2600	1000	1000	ug/Kg
BF01279	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2600	1000	1000	ug/Kg
BF01279	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2600	1000	1000	ug/Kg
BF01279	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	7300	2600	1000	1000	ug/Kg
BF01280	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2700	1000	1000	ug/Kg
BF01280	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2700	1000	1000	ug/Kg
BF01280	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2700	1000	1000	ug/Kg
BF01280	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2700	1000	1000	ug/Kg
BF01280	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	2700	1000	1000	ug/Kg
BF01280	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	2700	1000	1000	ug/Kg
BF01280	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2700	1000	1000	ug/Kg
BF01280	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2700	1000	1000	ug/Kg
BF01280	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2700	1000	1000	ug/Kg
BF01280	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	17000	2700	1000	1000	ug/Kg
BF01281	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	3400	570	1000	1000	ug/Kg
BF01282	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	3000	360	1000	1000	ug/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

### Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. Client: **GZA-PCB** Project Location: COMMERCIAL FOUNDRY COM Project Number: Laboratory Sample ID(s): BF01274, BF01275, BF01276, BF01277, BF01278, BF01279, BF01280, BF01281, BF01282 **Sampling Date(s):** 7/3/2013 **RCP Methods Used:** 1311/1312 6010 7000 ☐ EPH ☐ TO15 7196 7470/7471 8081 ✔ 8082 8151 8260 8270 ETPH 9010/9012 ☐ VPH For each analytical method referenced in this laboratory report package, were all ✓ Yes □ No specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP methodspecific Reasonable Confidence Protocol documents? Were the method specified preservation and holding time requirements met? ✓ Yes □ No EPH and VPH methods only: Was the VPH or EPH method conducted without 1b. ☐ Yes ☐ No **✓** NA significant modifications (see section 11.3 of respective RCP methods) Were all samples received by the laboratory in a condition consistent with that 2. ✓ Yes □ No described on the associated Chain-of-Custody document(s)? Were samples received at an appropriate temperature (< 6 Degrees C)? 3. ✓ Yes □ No ☐ NA Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol 4. ✓ Yes □ No documents achieved? Were reporting limits specified or referenced on the chain-of-custody? 5a. ✓ Yes □ No Were these reporting limits met? 5b. ☐ Yes ✓ No □ NA For each analytical method referenced in this laboratory report package, were results 6. ✓ Yes □ No  $\square$  NA reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? Are project-specific matrix spikes and laboratory duplicates included in the data set? 7. ☐ Yes ✓ No NA Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. Date: Thursday, July 11, 2013 Authorized Runakal Printed Name: Rashmi Makol Signature: Position: Project Manager







## **RCP Certification Report**

July 11, 2013

**SDG I.D.: GBF01274** 

Not all requested reporting levels were achieved due to the presence of target and non target compounds.

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** Au-ecd1 07/08/13-1 (BF01275)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/8/2013

**Instrument:** <u>Au-ecd24 07/08/13-1 (BF01282)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/8/2013

**Instrument:** <u>Au-ecd3 07/07/13-1 (BF01274, BF01275)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/7/2013

**Instrument:** Au-ecd5 07/09/13-1 (BF01276, BF01277, BF01278, BF01279, BF01280, BF01281,

BF01282)



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## **RCP Certification Report**

July 11, 2013

**SDG I.D.: GBF01274** 

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/9/2013

**Instrument:** <u>Au-ecd6 07/08/13-1 (BF01276, BF01277, BF01281)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/8/2013

**Instrument:** Au-ecd7 07/08/13-1 (BF01278, BF01279, BF01280)

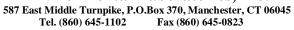
8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/8/2013







# **RCP Certification Report**

July 11, 2013

**SDG I.D.: GBF01274** 

QC (Batch Specific)
Sample No: BF00917, QA/QC Batch: 238984
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Sample No: BF02167, QA/QC Batch: 239053
All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**

The samples in this delivery group were received at  $4^{\circ}$ C. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

K Email Jang, hatton & 920, com 800-84-705 800-62- 890 Data Package
Tier.II Checklist Cooler: Yes ο Data Format PDF GIS/Key ☐ Eouls ☐ Other प्टब्स की Excel  $_{\circ}$ C  $_{
m Bd}$ Temp 🖊 Project P.O: MA MCP Certification Phone #: Fax #: ☐ GW-1 ☐ GW-2 ☐ GW-3 Data Delivery: S-1 Companil GW Protection SW Protection GA Mobility S GB Mobility CT RCP Cert Commercial Foundry 15.55 Direct Exposure 587 East Middle Turnpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 (Residential) **CHAIN OF CUSTODY RECORD** HATO J. PAR ] Other WS □ H Invoice to: Report to: Project: Turnaround: 820 820 655 Winding Brook Drive, Suit 402 98 001 0240 1040 1100 80 0 DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other 8 7/3/13 Date Client Sample - Information - Identification Sample Matrix Environmental Laboratories, Inc. Comments, Special Requirements or Regulations: Accepted by anthoy Jan 2-82A-14-PW-9 (15) A-17-PW-8(15) A-14 , PW-9 (10) A-14-PW-8(4) A-14-PW-8(10) 1-1 - PW- (5) 19-14-PW-9(4) G-1/1 - PW-7 (10) R-19-PU-7 Customer Sample Glastonlung arthyoun Relinquished by PHOENIX USE ONLY Customer: Address: SAMPLE # Sampler's Signature アプロ

, 20

\* SURCHARGE APPLIES

10

State where samples were collected:

\* SURCHARGE APPLIES

1 Day\*
2 Days\*
3 Days\*

R Standard
Other

2. detection livity a dismy,

1. manyel sexlet

Phoenix Std Report Full Data Package\*

| MWRA eSMART

S-2 S-3

K Residential DEC

☐ I/C DEC Other



Friday, July 12, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY COMPANIES

Sample ID#s: BF01283 - BF01290

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 13:05 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBF01283

Phoenix ID: BF01283

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-10-PW-13 (10)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	2.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	2.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	2.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	2.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	*	2.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	*	2.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	ND	2.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	2.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	2.4	mg/kg	07/09/13	AW	3540C/8082
Total PCBs	12	2.4	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/09/13	AW	30 - 150 %

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Client ID: A-10-PW-13 (10)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01283

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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July 12, 2013

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 13:10 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBF01283

Phoenix ID: BF01284

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-10-PW-13 (15)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	*	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	*	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	*	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
Total PCBs	4.8	0.33	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	109		%	07/09/13	AW	30 - 150 %
% TCMX	102		%	07/09/13	AW	30 - 150 %

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Client ID: A-10-PW-13 (15)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01284

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 13:15 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBF01283

Phoenix ID: BF01285

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-10-PW-14 (10)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	22	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	2.5	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/09/13	AW	30 - 150 %

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Client ID: A-10-PW-14 (10)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01285

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 13:20 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBF01283

Phoenix ID: BF01286

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-10-PW-14 (15)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	1.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	1.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	1.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	1.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	7.7	1.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	ND	1.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	ND	1.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	1.6	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	1.6	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/09/13	AW	30 - 150 %

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Client ID: A-10-PW-14 (15)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01286

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 13:25 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBF01283

Phoenix ID: BF01287

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-10-PW-15 (10)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.5	mg/kg	07/10/13	AW	3540C/8082
PCB-1221	ND	0.5	mg/kg	07/10/13	AW	3540C/8082
PCB-1232	ND	0.5	mg/kg	07/10/13	AW	3540C/8082
PCB-1242	ND	0.5	mg/kg	07/10/13	AW	3540C/8082
PCB-1248	2.9	0.5	mg/kg	07/10/13	AW	3540C/8082
PCB-1254	ND	0.5	mg/kg	07/10/13	AW	3540C/8082
PCB-1260	ND	0.5	mg/kg	07/10/13	AW	3540C/8082
PCB-1262	ND	0.5	mg/kg	07/10/13	AW	3540C/8082
PCB-1268	ND	0.5	mg/kg	07/10/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	81		%	07/10/13	AW	30 - 150 %
% TCMX	90		%	07/10/13	AW	30 - 150 %

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Client ID: A-10-PW-15 (10)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01287

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 13:30 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBF01283

Phoenix ID: BF01288

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-10-PW-15 (15)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.37	mg/kg	07/10/13	AW	3540C/8082
PCB-1221	ND	0.37	mg/kg	07/10/13	AW	3540C/8082
PCB-1232	ND	0.37	mg/kg	07/10/13	AW	3540C/8082
PCB-1242	ND	0.37	mg/kg	07/10/13	AW	3540C/8082
PCB-1248	1.7	0.37	mg/kg	07/10/13	AW	3540C/8082
PCB-1254	ND	0.37	mg/kg	07/10/13	AW	3540C/8082
PCB-1260	ND	0.37	mg/kg	07/10/13	AW	3540C/8082
PCB-1262	ND	0.37	mg/kg	07/10/13	AW	3540C/8082
PCB-1268	ND	0.37	mg/kg	07/10/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	85		%	07/10/13	AW	30 - 150 %
% TCMX	98		%	07/10/13	AW	30 - 150 %

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Client ID: A-10-PW-15 (15)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01288

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 13:40 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

Laboratory Data

SDG ID: GBF01283

Phoenix ID: BF01289

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-10-PW-16 (10)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.35	mg/kg	07/10/13	AW	3540C/8082
PCB-1221	ND	0.35	mg/kg	07/10/13	AW	3540C/8082
PCB-1232	ND	0.35	mg/kg	07/10/13	AW	3540C/8082
PCB-1242	ND	0.35	mg/kg	07/10/13	AW	3540C/8082
PCB-1248	1.8	0.35	mg/kg	07/10/13	AW	3540C/8082
PCB-1254	ND	0.35	mg/kg	07/10/13	AW	3540C/8082
PCB-1260	ND	0.35	mg/kg	07/10/13	AW	3540C/8082
PCB-1262	ND	0.35	mg/kg	07/10/13	AW	3540C/8082
PCB-1268	ND	0.35	mg/kg	07/10/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	86		%	07/10/13	AW	30 - 150 %
% TCMX	101		%	07/10/13	AW	30 - 150 %

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Client ID: A-10-PW-16 (10)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01289

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 13:45 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:59 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43369.83

**Laboratory Data** 

SDG ID: GBF01283

Phoenix ID: BF01290

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-10-PW-16 (15)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	1.5	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	102		%	07/09/13	AW	30 - 150 %
% TCMX	92		%	07/09/13	AW	30 - 150 %

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Client ID: A-10-PW-16 (15)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01290

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

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July 12, 2013

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

July 12, 2013

# QA/QC Data

SDG I.D.: GBF01283

		LCS	LCSD	LCS	MS	MSD	MS	% Rec	% RPD
Parameter	Blank	%	%	RPD	%	%	RPD	Limits	Limits
QA/QC Batch 239060, QC	Sample No: BF00835 (BF01	286, BF01287, BF01	288, BF	01289,	BF012	290)			
Polychlorinated Biph	nenyls - Solid								
PCB-1016	ND	83	78	6.2	88	84	4.7	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	83	79	4.9	121	139	13.8	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	90	87	84	3.5	78	78	0.0	30 - 150	30
% TCMX (Surrogate Rec)	86	86	81	6.0	86	93	7.8	30 - 150	30
QA/QC Batch 239053, QC	Sample No: BF02167 (BF01	283, BF01284, BF01	285)						
Polychlorinated Biph	<u>ienyls - Solid</u>								
PCB-1016	ND	84	88	4.7	87			40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	87	92	5.6	96			40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	95	87	92	5.6	91			30 - 150	30
% TCMX (Surrogate Rec)	91	90	97	7.5	96			30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

July 12, 2013

Friday, July 12, 2013 **Sample Criteria Exceedences Report** Page 1 of 2

# **GBF01283 - GZA-PCB**

State: CT

Requested Criteria: GAM, RC

	State: CT		05101200 02/1105				RL	Analysis
SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
BF01283	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01283	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01283	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01283	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01283	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	2400	1000	1000	ug/Kg
BF01283	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	2400	1000	1000	ug/Kg
BF01283	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01283	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01283	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2400	1000	1000	ug/Kg
BF01283	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	12000	2400	1000	1000	ug/Kg
BF01284	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	4800	330	1000	1000	ug/Kg
BF01285	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01285	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01285	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01285	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01285	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	22000	2500	1000	1000	ug/Kg
BF01285	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01285	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01285	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01285	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	2500	1000	1000	ug/Kg
BF01286	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	1600	1000	1000	ug/Kg
BF01286	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	1600	1000	1000	ug/Kg
BF01286	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	1600	1000	1000	ug/Kg
BF01286	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	1600	1000	1000	ug/Kg
BF01286	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	7700	1600	1000	1000	ug/Kg
BF01286	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	1600	1000	1000	ug/Kg
BF01286	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	1600	1000	1000	ug/Kg
BF01286	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	1600	1000	1000	ug/Kg
BF01286	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	1600	1000	1000	ug/Kg
BF01287	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	2900	500	1000	1000	ug/Kg
BF01288	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	1700	370	1000	1000	ug/Kg
BF01289	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	1800	350	1000	1000	ug/Kg
BF01290	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	1500	330	1000	1000	ug/Kg

Friday, July 12, 2013

# Sample Criteria Exceedences Report GBF01283 - GZA-PCB

Page 2 of 2

State: CT

Requested Criteria: GAM, RC

RL Analysis
SampNo Acode Phoenix Analyte Criteria Units
Result RL Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

# Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Labo	aboratory Name: Phoenix Environmental Labs, Inc. Client: GZA-PCB											
Proje	ect Location:	COMMERCIA	AL FOUNDRY	COM Projec	ct Number:							
Labo	oratory Sample	ID(s): BF01	283, BF01284,	BF01285, BF	01286, BF01287,	BF01288, B	F01289	BF01290				
Sam	pling Date(s):	7/3/2013										
RCP	Methods Used	d:										
13	311/1312	10 7000	7196	7470/7471	8081	☐ EPH		TO15				
<b>V</b> 80	082 🗌 815	51 🗌 8260	8270	_ ETPH	9010/9012	☐ VPH						
1.	specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?											
1a.	. Were the method specified preservation and holding time requirements met?   ✓ Yes □ No											
1b.	EPH and VPH m significant modific					□ Yes	□ No	<b>✓</b> NA				
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?  ✓ Yes □ No											
3.	Were samples re	ceived at an app	ropriate tempera	ature (< 6 Degre	es C)?	✓ Yes	□ No	□NA				
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?   ✓ Yes □ No											
5a.	Were reporting li	mits specified or	referenced on th	ne chain-of-custo	ody?	✓ Yes	□ No					
5b.	Were these repo	rting limits met?				✓ Yes	□ No	$\square$ NA				
6.		onstituents ident	fied in the metho	d-specific analyt	ckage, were results e lists presented in	✓ Yes	□ No	□NA				
7.	Are project-speci	fic matrix spikes	and laboratory d	luplicates include	ed in the data set?	□ Yes	✓ No	□NA				
Note:	Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".											
and	belief and bas	ed upon my	personal inqu	iry of those r	perjury that, to esponsible for p curate and comp	providing the						
Λ.,+	horized		+		Date: Frida	ay, July 12, 2	2013					
	nonzed nature:	Mah	ull ov	Pri	nted Name: Mar	yam Taylor						
Position: Project Manager												



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



# **RCP Certification Report**

July 12, 2013

**SDG I.D.: GBF01283** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** <u>Au-ecd24 07/08/13-1 (BF01286, BF01290)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/8/2013

**Instrument:** Au-ecd5 07/09/13-1 (BF01283, BF01284, BF01285, BF01286, BF01287, BF01288,

BF01289, BF01290)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/9/2013

**Instrument:** Au-ecd5 07/10/13-1 (BF01287, BF01288, BF01289)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/10/2013

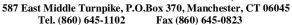
**Instrument:** Au-ecd6 07/08/13-1 (BF01284)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none







# **RCP Certification Report**

July 12, 2013

**SDG I.D.: GBF01283** 

Printed Name Adam Werner Position: Chemist Date: 7/8/2013

**Instrument:** <u>Au-ecd7 07/08/13-1 (BF01283, BF01285)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist 7/8/2013

#### QC (Batch Specific)

----- Sample No: BF00835, QA/QC Batch: 239060 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

------ Sample No: BF02167, QA/QC Batch: 239053 ------

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**

The samples were received at 4C with cooling initiated. (Note acceptance criteria is above freezing up to 6°C)

Coolant: IPK ☐ ICE ☐ N ☐ \* SURCHARGE APPLIES Phoenix Std Report Tier II Checklist K Email janer, hutton Ogzanam 860 - 622-8590 Data Package ō Data Format PDF GIS/Key ☐ EQuIS Lemp 

→ C Pg | MA MCP Certifičation MWRA eSMART Fax #: State where samples were collected: ] GW-2 ☐ GW-3 Data Delivery: \_\_\_\_S-\_\_ \_\_ S-2 Forda (ampanill Residential DEC ☐ GW Protection SW Protection ☐ GB Mobility CA RCP Cert GA Mobility I/C DEC RI Direct Exposure 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 (Residential) **CHAIN OF CUSTODY RECORD** Jin Hyth yn Hoter Other W<sub>G</sub>W \* SURCHARGE APPLIES Invoice to: Report to: Project: Analysis Request Time Sampled DEST 025 1240 SHE! 0621 2551 Matrix Code:

DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water SE=Sediment SL=Sludge S=Soil/Soild W=Wipe O=Other 7/3/13 1305 130 7/1/5/ Date: 7/1/1/ SISI COH HIM I BOOK DING, SUIT YOU Date Sampled Client Sample - Information - Identification Sample Matrix 2, detation lists: Oil my/19 0 Environmental Laboratories, Inc. Comments, Special Requirements or Regulations: Accepted by: Q-10-PW-12(10) A-10-A4-15 (15) A-10-PM-15(10) 9-10-AN-18(15) Q-10-PA-14(5) A-10-PW-16(0) A-10-Ph-13(15) A-10-PM-14 (10) Customer Sample asky sia Identification 1. mand sochles PHOENIX USE ONLY Relinquished by: 01280 Customer: 01283 01285 01285 Siek Address: ) (SX **8** Sampler's Signature



Friday, July 12, 2013

Attn: Mr. Jim Hutton GZA GeoEnvironmental Inc 655 Winding Brook Drive Suite 402 Glastonbury, CT 06033

Project ID: COMMERCIAL FOUNDRY COMPANIES

Sample ID#s: BF01291 - BF01297

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 11:35 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:55 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43368.83

**Laboratory Data** 

SDG ID: GBF01291

Phoenix ID: BF01291

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-12-PW-1 (10)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.65	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	0.65	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	0.65	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	0.65	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	*	0.65	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	*	0.65	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	*	0.65	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	0.65	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	0.65	mg/kg	07/09/13	AW	3540C/8082
Total PCBs	5.2	0.65	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	100		%	07/09/13	AW	30 - 150 %
% TCMX	99		%	07/09/13	AW	30 - 150 %

Page 1 of 14 Ver 1

Client ID: A-12-PW-1 (10)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01291

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

July 12, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Page 2 of 14 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 11:30 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:55 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43368.83

**Laboratory Data** 

SDG ID: GBF01291

Phoenix ID: BF01292

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-12-PW-1 (15)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	3.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	3.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	3.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	*	3.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	*	3.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	ND	3.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	3.4	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	3.4	mg/kg	07/09/13	AW	3540C/8082
Total PCBs	12	3.4	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/09/13	AW	30 - 150 %

Page 3 of 14 Ver 1

Client ID: A-12-PW-1 (15)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01292

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 12, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 12:00 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:55 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43368.83

<u>Laboratory Data</u>

SDG ID: GBF01291

Phoenix ID: BF01293

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-12-PW-2 (10)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	5.4	mg/kg	07/10/13	AW	3540C/8082
PCB-1221	ND	5.4	mg/kg	07/10/13	AW	3540C/8082
PCB-1232	ND	5.4	mg/kg	07/10/13	AW	3540C/8082
PCB-1242	ND	5.4	mg/kg	07/10/13	AW	3540C/8082
PCB-1248	*	5.4	mg/kg	07/10/13	AW	3540C/8082
PCB-1254	*	5.4	mg/kg	07/10/13	AW	3540C/8082
PCB-1260	*	5.4	mg/kg	07/10/13	AW	3540C/8082
PCB-1262	ND	5.4	mg/kg	07/10/13	AW	3540C/8082
PCB-1268	ND	5.4	mg/kg	07/10/13	AW	3540C/8082
Total PCBs	59	5.4	mg/kg	07/10/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/10/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/10/13	AW	30 - 150 %

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Client ID: A-12-PW-2 (10)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01293

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 12, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260.



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**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 12:10 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:55 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43368.83

**Laboratory Data** 

SDG ID: GBF01291

Phoenix ID: BF01294

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-12-PW-2 (15)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	3.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	3.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	3.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	*	3.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	*	3.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	ND	3.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	3.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	3.9	mg/kg	07/09/13	AW	3540C/8082
Total PCBs	30	3.9	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/09/13	AW	30 - 150 %

Page 7 of 14 Ver 1

Client ID: A-12-PW-2 (15)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01294

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 12, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Page 8 of 14 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 12:25 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:55 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43368.83

**Laboratory Data** 

SDG ID: GBF01291

Phoenix ID: BF01295

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-12-PW-3 (10)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	4.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	4.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	4.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	4.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	*	4.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	*	4.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	ND	4.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	4.9	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	4.9	mg/kg	07/09/13	AW	3540C/8082
Total PCBs	40	4.9	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/09/13	AW	30 - 150 %

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Client ID: A-12-PW-3 (10)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01295

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 12, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Date Time Matrix: **SOLID** Collected by: ΑT 07/03/13 12:35 Received by: Location Code: **GZA-PCB** LB 07/03/13 15:55 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43368.83

**Laboratory Data** 

SDG ID: GBF01291

Phoenix ID: BF01296

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-12-PW-3 (15)

		RL/				
Parameter	Result	PQL	Units	Date/Time	Ву	Reference
Percent Solid	100	1	%	07/05/13	LB	E160.3
Extraction for PCB	Completed			07/07/13	TT/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3.2	mg/kg	07/09/13	AW	3540C/8082
PCB-1221	ND	3.2	mg/kg	07/09/13	AW	3540C/8082
PCB-1232	ND	3.2	mg/kg	07/09/13	AW	3540C/8082
PCB-1242	ND	3.2	mg/kg	07/09/13	AW	3540C/8082
PCB-1248	*	3.2	mg/kg	07/09/13	AW	3540C/8082
PCB-1254	*	3.2	mg/kg	07/09/13	AW	3540C/8082
PCB-1260	*	3.2	mg/kg	07/09/13	AW	3540C/8082
PCB-1262	ND	3.2	mg/kg	07/09/13	AW	3540C/8082
PCB-1268	ND	3.2	mg/kg	07/09/13	AW	3540C/8082
Total PCBs	26	3.2	mg/kg	07/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/09/13	AW	30 - 150 %

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Client ID: A-12-PW-3 (15)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01296

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

### **Comments:**

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Phyllis Shiller, Laboratory Director

July 12, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260.



#### Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

July 12, 2013

FOR: Attn: Mr. Jim Hutton

GZA GeoEnvironmental Inc 655 Winding Brook Drive

Suite 402

Glastonbury, CT 06033

Sample Information **Custody Information** Time Date Matrix: SOLID Collected by: ΑT 07/03/13 11:40 **GZA-PCB** Received by: Location Code: LB 07/03/13 15:55 Rush Request: Standard Analyzed by: see "By" below

P.O.#: 43368.83

**Laboratory Data** 

SDG ID: GBF01291

Phoenix ID: BF01297

Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-12-PW-1 (20)

RL/ **PQL** Units Date/Time Parameter Result Βv Reference Percent Solid 100 % 07/05/13 LB E160.3 1 Extraction for PCB Completed 07/07/13 TT/HB SW3540C PCB (Soxhlet) PCB-1016 ND 0.85 mg/kg 07/10/13 ΑW 3540C/8082 PCB-1221 ND 0.85 mg/kg 07/10/13 AW 3540C/8082 3540C/8082 ND 07/10/13 ΑW PCB-1232 0.85 mg/kg ND 0.85 07/10/13 ΑW 3540C/8082 PCB-1242 mg/kg 0.85 07/10/13 AW 3540C/8082 PCB-1248 mg/kg 3540C/8082 PCB-1254 0.85 mg/kg 07/10/13 AW 3540C/8082 PCB-1260 0.85 07/10/13 ΑW mg/kg PCB-1262 ND 0.85 mg/kg 07/10/13 ΑW 3540C/8082 PCB-1268 ND 07/10/13 ΑW 3540C/8082 0.85 mg/kg 3540C/8082 5.4 0.85 07/10/13 AW Total PCBs mg/kg **QA/QC Surrogates** % DCBP 98 % 07/10/13 AW 30 - 150 % 77 07/10/13 ΑW 30 - 150 % % TCMX %

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Project ID: COMMERCIAL FOUNDRY COMPANIES

Client ID: A-12-PW-1 (20)

RL/

Parameter Result PQL Units Date/Time By Reference

Phoenix I.D.: BF01297

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

#### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

July 12, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

Page 14 of 14 Ver 1

<sup>\*</sup> For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260.



#### Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

#### QA/QC Report

July 12, 2013

#### QA/QC Data

SDG I.D.: GBF01291

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits			
QA/QC Batch 239060, QC S	QA/QC Batch 239060, QC Sample No: BF00835 (BF01291, BF01292, BF01293, BF01294, BF01295, BF01296, BF01297)											
Polychlorinated Biphenyls - Solid												
PCB-1016	ND	83	78	6.2	88	84	4.7	40 - 140	30			
PCB-1221	ND							40 - 140	30			
PCB-1232	ND							40 - 140	30			
PCB-1242	ND							40 - 140	30			
PCB-1248	ND							40 - 140	30			
PCB-1254	ND							40 - 140	30			
PCB-1260	ND	83	79	4.9	121	139	13.8	40 - 140	30			
PCB-1262	ND							40 - 140	30			
PCB-1268	ND							40 - 140	30			
% DCBP (Surrogate Rec)	90	87	84	3.5	78	78	0.0	30 - 150	30			
% TCMX (Surrogate Rec)	86	86	81	6.0	86	93	7.8	30 - 150	30			

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

July 12, 2013

#### **GBF01291 - GZA-PCB**

State:	CT

Requested Criteria: GAM, RC

	State: CT		05.0.201 02.7.1 05				RL	Analysis
SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
BF01291	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	5200	650	1000	1000	ug/Kg
BF01292	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3400	1000	1000	ug/Kg
BF01292	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3400	1000	1000	ug/Kg
BF01292	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3400	1000	1000	ug/Kg
BF01292	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3400	1000	1000	ug/Kg
BF01292	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	3400	1000	1000	ug/Kg
BF01292	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	3400	1000	1000	ug/Kg
BF01292	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3400	1000	1000	ug/Kg
BF01292	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3400	1000	1000	ug/Kg
BF01292	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3400	1000	1000	ug/Kg
BF01292	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	12000	3400	1000	1000	ug/Kg
BF01293	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	5400	1000	1000	ug/Kg
BF01293	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	5400	1000	1000	ug/Kg
BF01293	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	5400	1000	1000	ug/Kg
BF01293	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	5400	1000	1000	ug/Kg
BF01293	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	5400	1000	1000	ug/Kg
BF01293	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	5400	1000	1000	ug/Kg
BF01293	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	5400	1000	1000	ug/Kg
BF01293	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	5400	1000	1000	ug/Kg
BF01293	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	5400	1000	1000	ug/Kg
BF01293	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	59000	5400	1000	1000	ug/Kg
BF01294	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3900	1000	1000	ug/Kg
BF01294	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3900	1000	1000	ug/Kg
BF01294	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3900	1000	1000	ug/Kg
BF01294	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3900	1000	1000	ug/Kg
BF01294	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	3900	1000	1000	ug/Kg
BF01294	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	3900	1000	1000	ug/Kg
BF01294	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3900	1000	1000	ug/Kg
BF01294	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3900	1000	1000	ug/Kg
BF01294	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3900	1000	1000	ug/Kg
BF01294	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	30000	3900	1000	1000	ug/Kg
BF01295	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	4900	1000	1000	ug/Kg
BF01295	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	4900	1000	1000	ug/Kg
BF01295	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	4900	1000	1000	ug/Kg
BF01295	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	4900	1000	1000	ug/Kg
BF01295	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	4900	1000	1000	ug/Kg
BF01295	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	4900	1000	1000	ug/Kg
BF01295	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	4900	1000	1000	ug/Kg
BF01295	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	4900	1000	1000	ug/Kg

Friday, July 12, 2013 Page 2 of 2 **Sample Criteria Exceedences Report** 

**GBF01291 - GZA-PCB** 

State: CT

Requested Criteria: GAM, RC

	State: CT						RL	Analysis
SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
BF01295	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	4900	1000	1000	ug/Kg
BF01295	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	40000	4900	1000	1000	ug/Kg
BF01296	\$PCB_SOXR	PCB-1016	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3200	1000	1000	ug/Kg
BF01296	\$PCB_SOXR	PCB-1221	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3200	1000	1000	ug/Kg
BF01296	\$PCB_SOXR	PCB-1232	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3200	1000	1000	ug/Kg
BF01296	\$PCB_SOXR	PCB-1242	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3200	1000	1000	ug/Kg
BF01296	\$PCB_SOXR	PCB-1248	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	3200	1000	1000	ug/Kg
BF01296	\$PCB_SOXR	PCB-1254	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	3200	1000	1000	ug/Kg
BF01296	\$PCB_SOXR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	*	3200	1000	1000	ug/Kg
BF01296	\$PCB_SOXR	PCB-1262	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3200	1000	1000	ug/Kg
BF01296	\$PCB_SOXR	PCB-1268	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	ND	3200	1000	1000	ug/Kg
BF01296	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	26000	3200	1000	1000	ug/Kg
BF01297	\$PCB_SOXR	Total PCBs	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	5400	850	1000	1000	ug/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

#### Reasonable Confidence Protocol Laboratory Analysis QA/QC Certification Form

Labo	Laboratory Name: Phoenix Environmental Labs, Inc. Client: GZA-PCB											
Proje	ect Location: COMMERCIAL FOUNDRY COM Project Number:											
Labo	oratory Sample ID(s): BF01291, BF01292, BF01293, BF01294, BF01295, B	F01296, BF	01297									
Sam	pling Date(s): 7/3/2013											
RCP	Methods Used:											
13	11/1312	EPH		TO15								
<b>√</b> 80	82	☐ VPH										
1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	✓ Yes	□ No									
1a.	▼ Yes □ No											
1b.	EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐	□ No	<b>✓</b> NA								
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	✓ Yes	No									
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	✓ Yes □	□No	□NA								
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	✓ Yes □	□ No									
5a.	Were reporting limits specified or referenced on the chain-of-custody?	✓ Yes	□ No									
5b.	Were these reporting limits met?	✓ Yes □	No	□NA								
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	✓ Yes	□ No	□NA								
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes 💆	<b>☑</b> No	□NA								
Note:	Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".											
and	e undersigned, attest under the pains and penalties of perjury that, to the belief and based upon my personal inquiry of those responsible for protained in this analytical report, such information is accurate and comple	oviding the	•	_								
Aut	horized Date: Friday	, July 12, 20	13									
	nature: Printed Name: Marya	•										
II.	Position: Project	t Manager										



#### **Environmental Laboratories, Inc.**





#### **RCP Certification Report**

July 12, 2013

**SDG I.D.: GBF01291** 

#### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

**Instrument:** <u>Au-ecd24 07/08/13-1 (BF01291, BF01292)</u>

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/8/2013

**Instrument:** Au-ecd5 07/09/13-1 (BF01291, BF01292, BF01293, BF01294, BF01295, BF01296,

BF01297)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/9/2013

**Instrument:** Au-ecd5 07/10/13-1 (BF01293, BF01297)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner Position: Chemist Date: 7/10/2013



#### **Environmental Laboratories, Inc.**

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823



#### **RCP Certification Report**

July 12, 2013

**SDG I.D.: GBF01291** 

#### QC (Batch Specific)

----- Sample No: BF00835, QA/QC Batch: 239060 -----

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Temperature Narration**

The samples were received at 4C with cooling initiated. (Note acceptance criteria is above freezing up to  $6^{\circ}$ C)

\* SURCHARGE APPLIES Phoenix Std Report B Email: Janti, hittor Poza, com Full Data Package\* 860-858-318 Data Package
Tier II Checklist Coolant: IPK□ ICE 880-622 -8580 ð Data Format PDF GIS/Key Project P.O. 43268. 8 EQuIS Other Other  $\Gamma^{\circ}_{\rm C}$  Pg Temp  ${\cal L}$ MA MCP Certification MWRA eSMART Phone #: Fax #: ☐ GW-3 ☐ GW-2 ☐ GW-1 Data Delivery: S-1 S-2 State where samples were collected: X Residential DEC Commercial Founds Comported GW Protection SW Protection GB Mobility CT RCP Cert GA Mobility ☐ I/C DEC Other RI Direct Exposure 587 East Middle Tumpike, Manchester, CT 06040 Email: info@phoenixlabs.com Fax (860) 645-0823 Client Services (860) 645-8726 (Residential) **CHAIN OF CUSTODY RECORD** HAFFOR J.M INTHON Other GW □ 3 Days\*

Standard
Other

Surcharge Applies ARIS WINDS Invoice to: Report to: Project: Turnaround: Analysis Request 1200 133 1/2// 751 lalo GSC Widin Prook Dire, Sinte 402 IBBSS DHO SSS Matrix Code:

DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water 2/2/13 Sampled 0=Other Date Date: Client Sample - Information - Identification W=Wipe Sample Matrix 2, detection limit = 0,5 mg/19 1. manuel southed extraction 0 Environmental Laboratories, Inc. Comments, Special Requirements or Regulations: Accepted by (0) 2-A-51-A a) 249 - 517 79610 (a) Erd- K/V (2) 52-A- CIVA B A-12-Ar)(10) SE=Sediment SL=Sludge S=Soil/Solid anthon I can Customer Sample 1-M-514 Identification anthory I rans PHOENIX USE ONLY
SAMPLE # Relinquished by 21295 Customer: Address: P000 0220 029 Sampler's Signature

Cooler: Yes

## APPENDIX D DATA QUALITY ASSESSMENT AND USABILITY EVALUATION

### NEW BRITAIN, CONNECTICUT

Sample Type/Location:	1988 Envi Assurance Report	1988 Envi Assurance Report	1992 GZA Report	1992 GZA Report	1992 GZA Report	1992 GZA report	1992 GZA report
Lab/Lab Report ID:	Envi Monitoring Laboratory	Baron Consulting	GZA ECL	GZA ECL	ESC 11618	ESC	GZA ECL
Report Date:	5/12/1988	11/11/1988	5/14/1992	5/18/1992	5/21/1992	7/30/1992	7/31/1992
Data Package Inspection	pre-RCP Data Package	pre-RCP Data Package	pre-RCP Data Package	pre-RCP Data Package	pre-RCP Data Package	pre-RCP Data Package	pre-RCP Data Package
Chain of Custody Evaluation	COC not provided, lab results include 3 Soil samples submitted for 8010/8020 and 8015.	COC not provided, lab results include 12 Soil and 2 water samples submitted for 8010/8020.	4 soil samples for GC screening- 8021-like	4 groundwater samples for GC screening- 8021-like	4 Water samples for RCRA 8 metals	1 Soil sample for TCLP metals	3 Soil samples submitted for VOC screening
Preservation and Holding Time	Analyzed within hold time.	Analyzed within hold time.	Analyzed within hold time.	Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Analyzed within hold time.	Analyzed within hold time.
Site-specific MS/MSD	None	None	None	None	None	None	None
Duplicate Samples	None	None	None	None	None	Within acceptance limits	None
Surrogates	None reported	None reported	None reported	None reported	None reported	None reported	None reported
LCS/LCSD	None reported	None reported	Within acceptance limits				
Method Blanks	None reported	None reported	None reported	None reported	No detects	No detects	None reported
Lab Contaminants	None reported	None reported	None reported	None reported	None reported	None reported	None reported
Calibration/Etc.	None reported	None reported	None reported	None reported	None reported	None reported	None reported
RL Evaluation: Criteria/RL	None reported	None reported	None reported	None reported	None reported	None reported	None reported
Other QC Data	None reported	None reported	None reported	None reported	None reported	None reported	None reported
Conclusion:	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.

### NEW BRITAIN, CONNECTICUT

Sample Type/Location:	1993 GZA report	1993 GZA report	1993 GZA report				
Lab/Lab Report ID:	GZA ECL Mobile Lab	GZA ECL 05687	CTL-83-132-2	GZA ECL 05731	CTL-83-236-3P	GZA ECL 05752	CTL-83-380-2P
Report Date:	7/1/1993	7/28/1993	8/16/1993	8/18/1993	8/20/1993	8/25/1993	8/27/1993
Data Package Inspection	pre-RCP Data Package	pre-RCP Data Package	pre-RCP Data Package				
Chain of Custody Evaluation	54 soil gas samples analyzed on-site for VOCs by HNU 311 GC	7 Water and one soil sample submitted for 8021	2 Water samples submitted for 601/8010 and 602/8020 Scans	2 Water and one soil sample submitted for 8010/8020	3 Soil samples submitted for 601/8010 and 602/8020 Scans, PCBs, TPH, TCLP metals, flashpoint, pH, reactivity	1 soil sample submitted for 8010/8020	2 Water samples submitted for 601/8010 and 602/8020 Scans
Preservation and Holding Time	Analyzed within hold time.	Analyzed within hold time.	Analyzed within hold time.				
Site-specific MS/MSD	None	None	None	None	None	None	None
Duplicate Samples	None	None	None	None	None	None	None
Surrogates	None reported	All surrogate recoveries were within limits.	None reported	All surrogate recoveries were within limits.	None reported	All surrogate recoveries were within limits.	None reported
LCS/LCSD	Within acceptance limits	None reported	None reported	None reported	None reported	Within acceptance limits	None reported
Method Blanks	No detects	None reported	None reported	None reported	None reported	No detects	None reported
Lab Contaminants	None reported	None reported	None reported				
Calibration/Etc.	None reported	None reported	None reported				
RL Evaluation: Criteria/RL	None reported	None reported	None reported				
Other QC Data	None reported	None reported	None reported				
Conclusion:	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.

### COMMERCIAL FOUNDRY COMPANII 326 SOUTH STREET NEW BRITAIN, CONNECTICUT

NEW DATE IN CONTRECTOR											
Sample Type/Location:	1993 GZA report	1995 GZA Report	1995 GZA Report	1996 GZA Jan Quarterly Report	1996 GZA Apr Quarterly Report	1996 GZA July Quarterly Report	1997 GZA Mar Quarterly Report				
Lab/Lab Report ID:	CTL-83-381-1P	GZA ECL 9510-00127	Matrix Analytical 53395219	GZA ECL 9601-00122	GZA ECL 9604-00114	GZA ECL 9607-00098	GZA ECL 9703-00156				
Report Date:	8/27/1993	11/7/1995	12/7/1995	1/22/1996	4/26/1996	7/25/1996	4/17/1997				
Data Package Inspection	pre-RCP Data Package										
Chain of Custody Evaluation	1 Water sample submitted for 601/8010 and 602/8020 Scans	COC not provided, lab results include 10 soil and 6 water samples by 8021	2 Soil samples for SPLP metals, TPH, PP13 metals, 8270	COC not provided, lab results include 7 groundwater samples submitted for 8021.	7 Groundwater samples submitted for 8021.	7 Groundwater samples submitted for 8021.	7 Groundwater samples submitted for 8021.				
Preservation and Holding Time	Analyzed within hold time.										
Site-specific MS/MSD	None										
Duplicate Samples	None	None	Lab duplicate within limits.								
Surrogates	None reported	All surrogate recoveries were within limits.									
LCS/LCSD	None reported	None reported	Within acceptance limits								
Method Blanks	None reported	None reported	No detects								
Lab Contaminants	None reported	None reported	None	None	None	None	None				
Calibration/Etc.	None reported										
RL Evaluation: Criteria/RL	None reported										
Other QC Data	None reported										
Conclusion:	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems				

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Sample Type/Location:	1998 GZA Jan Quarterly Report	1998 GZA June Quarterly Report	1998 GZA Dec Quarterly Report	1999 GZA Apr Quarterly Report	2002 GZA Post-Rem SV Report	2006 GZA Phase 1/2 Report	2006 GZA Phase 1/2 Report
Lab/Lab Report ID:	GZA ECL 9801-00222	GZA ECL 9806-00218	GZA ECL 9812-00195	GZA ECL 9904-00070	BL Analytical/Sentinel	GZA ECL 0507-00139	GZA ECL 0508-00109
Report Date:	2/6/1998	7/2/1998	1/7/1999	4/29/1999	1/22/2001	8/3/2005	8/19/2005
Data Package Inspection	pre-RCP Data Package	pre-RCP Data Package	pre-RCP Data Package	pre-RCP Data Package	pre-RCP Data Package	pre-RCP Data Package	pre-RCP Data Package
Chain of Custody Evaluation	7 Groundwater samples submitted for 8021.	7 Groundwater samples submitted for 8021.	7 Groundwater samples submitted for 8021.	7 Groundwater samples submitted for 8021.	54 Soil gas samples for VOCs analyzed during 4 quarters of monitoring. On-site mobile laboratory.	22 Soil samples submitted for metals, PCBs ETPH	2 Soil samples submitted for metals and ETPH
Preservation and Holding Time	Analyzed within hold time.	Analyzed within hold time.	Analyzed within hold time.	Analyzed within hold time.	Analyzed within hold time.	Analyzed within hold time.	Analyzed within hold time.
Site-specific MS/MSD	None	None	None	None	None	None	None
Duplicate Samples	Lab duplicate within limits.	Lab duplicate within limits.	Lab duplicate within limits.	Lab duplicate within limits.	None	None	None
Surrogates	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	None reported	Some surrogate recoveries for ETPH are low due to matrix interference.	All surrogate recoveries were within limits.
LCS/LCSD	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	None reported	Within acceptance limits	Within acceptance limits
Method Blanks	No detects	No detects	No detects	No detects	None reported	No detects	No detects
Lab Contaminants	None	None	None	None	None reported	None	None
Calibration/Etc.	None reported	None reported	None reported	None reported	None reported	No issues reported	No issues reported
RL Evaluation: Criteria/RL	None reported	None reported	None reported	None reported	None reported	No issues reported	No issues reported
Other QC Data	None reported	None reported	None reported	None reported	None reported	None	None
Conclusion:	Limited QC data, report is typical for its time period and does not have any obvious problems	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems	Limited QC data, report is typical for its time period and does not have any obvious problems.	Limited QC data, report is typical for its time period and does not have any obvious problems.	QC data is complete and comparable to RCP deliverable.	QC data is complete and comparable to RCP deliverable.

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Sample Type/Location:	2006 GZA Phase 1/2 Report	2006 GZA Phase 1/2 Report	2006 GZA Phase 1/2 Report	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40
Lab/Lab Report ID:	GZA ECL 0510-00090	GZA ECL 0511-00087	GZA ECL 0511-00198	Phoenix 88490	Phoenix 88855	Phoenix 88511	Phoenix 89276
Report Date:	10/20/2005	11/16/2005	11/30/2005	6/29/2009	6/29/2009	6/29/2009	6/30/2009
Data Package Inspection	pre-RCP Data Package	pre-RCP Data Package	pre-RCP Data Package	Non RCP Data Package with RCP-like deliverables	Non RCP Data Package with RCP-like deliverables	Non RCP Data Package with RCP-like deliverables	RCP Data Package
Chain of Custody Evaluation	5 Groundwater samples submitted for 8260 and metals.	6 Groundwater samples submitted for 8260 and metals.	1 Groundwater sample submitted for metals.	20 Soil samples for PCBs	10 Soil samples for PCBs	1 Waste characterization soil sample	1 Soil sample for PCBs
Preservation and Holding Time	Analyzed within hold time.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.					
Site-specific MS/MSD	None	None	None	None	None	None	None
Duplicate Samples	None	None	None	None	None	None	None
Surrogates	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.					
LCS/LCSD	Within acceptance limits	Within acceptance limits					
Method Blanks	No detects	No detects					
Lab Contaminants	None	None	None	None	None	None	None
Calibration/Etc.	No issues reported	No issues reported					
RL Evaluation: Criteria/RL	No issues reported	No issues reported					
Other QC Data	None	None	None	None	None	None	None
Conclusion:	QC data is complete and comparable to RCP deliverable.	QC data is complete and comparable to RCP deliverable.	QC data is complete and comparable to RCP deliverable.	QC data is complete and comparable to RCP deliverable.	QC data is complete and comparable to RCP deliverable.	QC data is complete and suitable for the purposes of this sample.	Data is usable as reported.

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Sample Type/Location:	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40
Lab/Lab Report ID:	Phoenix 90658	Phoenix 90678	Phoenix 90646	Phoenix 91116	Phoenix 92120	Phoenix 91200	Phoenix 91116
Report Date:	7/7/2009	7/7/2009	7/8/2009	7/9/2009	7/9/2009	7/10/2009	7/10/2009
Data Package Inspection	RCP Data Package	Non RCP Data Package with RCP-like deliverables	RCP Data Package	Non RCP Data Package with RCP-like deliverables	RCP Data Package	RCP Data Package	RCP Data Package
Chain of Custody Evaluation	8 Soil samples for PCBs	15 Soil samples for PCBs	2 Soil samples for PCBs		3 Soil samples for PCBs	10 Soil samples for PCBs	6 Soil samples for PCBs
Preservation and Holding Time	Preserved appropriately. Analyzed within hold time.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.	Preserved appropriately. Analyzed within hold time.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.
Site-specific MS/MSD	None	MS/MSD could not be calculated due to PCBs in the original sample.	None		None	MS/MSD could not be calculated due to matrix interference.	Within acceptance limits
Duplicate Samples	None	None	None	None	None	None	None
Surrogates	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	ETPH surrogate was out of limits due to extraction error.	All surrogate recoveries were within limits.
LCS/LCSD	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits
Method Blanks	No detects	No detects	No detects	No detects	No detects	No detects	No detects
Lab Contaminants	None	None	None	None	None	None	None
Calibration/Etc.	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported
RL Evaluation: Criteria/RL	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported
Other QC Data	None	None	None	None	None	None	None
Conclusion:	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.

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Sample Type/Location:	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40
Lab/Lab Report ID:	Phoenix 93255	Phoenix 92135	Phoenix 92136	Phoenix 91200	Phoenix 93262	Phoenix 95894	Phoenix 91604
Report Date:	7/15/2009	7/15/2009	7/22/2009	7/23/2009	7/23/2009	7/23/2009	7/24/2009
Data Package Inspection	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package
Chain of Custody Evaluation	10 Soil samples for PCBs	2 Soil samples for PCBs	1 Soil sample for PCBs and ETPH	5 Soil samples for metals, SPLP metals, PCBs and ETPH	2 Soil samples for PCBs and ETPH	11 Soil samples for PCBs	2 Soil samples for PCBs and ETPH
Preservation and Holding Time	Preserved appropriately. Analyzed within hold time.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.
Site-specific MS/MSD	Within acceptance limits	Within acceptance limits	Within acceptance limits	MS/MSD could not be calculated due to matrix interference.	Within acceptance limits	MS/MSD could not be calculated due to PCBs in the original sample.	None
Duplicate Samples	None	None	None	None	None	None	None
Surrogates	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	ETPH surrogate was out of limits due to extraction error.	ETPH surrogate was out of limits due to extraction error.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.
LCS/LCSD	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits
Method Blanks	No detects	No detects	No detects	No detects	No detects	No detects	No detects
Lab Contaminants	None	None	None	None	None	None	None
Calibration/Etc.	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported
RL Evaluation: Criteria/RL	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported
Other QC Data	None	None	None	None	None	None	None
Conclusion:	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.

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Sample Type/Location:	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40	GZA Soil Remed .40	GZA Supp Interior Inv	GZA Supp Interior Inv
Lab/Lab Report ID:	Phoenix 91118	Phoenix 93274	Phoenix 95393	Phoenix 97979	Phoenix 93261	Phoenix 91658/91660	Phoenix 91642
Report Date:	7/24/2009	7/24/2009	7/28/2009	7/28/2009	8/25/2009	1/5/2011	1/10/2011
Data Package Inspection	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package
Chain of Custody Evaluation	1 Soil sample for PCBs and ETPH	8 Soil samples for PCBs and ETPH	10 Soil samples for PCBs	6 Soil samples for PCBs 6 Soil samples for PCBs		6 Soil samples for VOCs with TICs and PCBs	3 Soil samples for VOCs with TICs and PCBs
Preservation and Holding Time	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.	Preserved appropriately. Analyzed within hold time.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.  Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.		Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.
Site-specific MS/MSD	None	None	Within acceptance limits	None	Within acceptance limits	None	None
Duplicate Samples	None	None	None	None	None	None	None
Surrogates	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	PCB surrogate DCBP in some samples could not be reported due to matrix interference.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.
LCS/LCSD	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	LCS/D recoveries out of limits for acetone, trans-1,2 DCE, 1,2,3-TCB, hexachlorobutadiene, MTBE	LCS/D recoveries out of limits for 1,4-dichloro-2-butene, acetone
Method Blanks	No detects	No detects	No detects	No detects	No detects	No detects	No detects
Lab Contaminants	None	None	None	None	None	None	None
Calibration/Etc.	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	Minor issues for non-COC compounds
RL Evaluation: Criteria/RL	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported
Other QC Data	None	None	None	None	None	None	None
Conclusion:	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Possible low bias for VOCs with LCS issues.	Possible low bias for VOCs with LCS issues in one sample.

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Sample Type/Location:	GZA Supp Interior Inv	GZA Supp Interior Inv	2011 Interior	2011 Interior	2011 Interior	2011 Interior	2011 Interior
Lab/Lab Report ID:	Phoenix 91941	Phoenix 91958	Phoenix 29520	Phoenix 30181	Phoenix 30686	Phoenix 30699	Phoenix 30712
Report Date:	1/26/2011	1/25/2011	5/17/2011	5/18/2011	5/19/2011	5/20/2011	5/19/2011
Data Package Inspection	Non RCP Data Package with RCP-like deliverables	Non RCP Data Package with RCP-like deliverables	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package
Chain of Custody Evaluation	5 Soil samples for PCBs	2 Soil samples for PCBs	21 Paint samples for PCBs (one blind duplicate)	10 Paint samples for PCBs	10 Paint samples for PCBs  13 Concrete samples for PCBs		9 Concrete samples for PCBs
Preservation and Holding Time	Analyzed within hold time.	Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.  Preserved appropriately. Analyzed within hold time.		Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.
Site-specific MS/MSD	MS/MSD could not be calculated due to matrix interference.	None	The MS/MSD could not be calculated due to the presence of PCBs in the original sample.		The MS/MSD could not be calculated due to the presence of PCBs in the original sample.	None	None
Duplicate Samples	None	None	None	None	None	None	None
Surrogates	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.
LCS/LCSD	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits
Method Blanks	No detects	No detects	No detects	No detects	No detects	No detects	No detects
Lab Contaminants	None	None	None	None	None	None	None
Calibration/Etc.	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported
RL Evaluation: Criteria/RL	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported
Other QC Data	None	None	None	None	None	None	None
Conclusion:	QC data is complete and comparable to RCP deliverable.	QC data is complete and comparable to RCP deliverable.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.

#### NEW BRITAIN, CONNECTICUT

Sample Type/Location:	2011 Interior	2011 Interior	Waste Charac	Equip Clearance Wipe	Equip Clearance Wipe	Source Removal Soil/Conc	Source Removal Soil/Conc
Lab/Lab Report ID:	Phoenix 30721	Phoenix 30171	Phoenix BB08283	Phoenix BB15298	Phoenix BB16147	ESS 1112461	ESS 1112462
Report Date:	5/20/2011	5/23/2011	12/13/2011	12/30/2011	1/3/2012	1/4/2012	1/4/2012
Data Package Inspection	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package
Chain of Custody Evaluation	9 Concrete samples for PCBs	10 Wipe samples for PCBs	1 Soil, 1 concrete sample for 8260, pH, RCRA 8 metals, TCLP metals, PCBs	7 wipe samples for PCBs	1 wipe sample for PCBs	5 Soil samples for PCBs	11 Soil/solid samples for PCBs
Preservation and Holding Time	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Analyzed within hold time.	Analyzed within hold time.	Analyzed within hold time.	Analyzed within hold time.
Site-specific MS/MSD	All MS/MSD RPDs were within limits except PCB-1016, which recovered above limits.	None	None	None	None	None	None
Duplicate Samples	None	None	None	None	None	None	None
Surrogates	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.
LCS/LCSD	Within acceptance limits	Within acceptance limits	LCS/D recoveries out of limits for acetone, 2-hexanone, methyl ethyl ketone, trichlorofluoromethane	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits
Method Blanks	No detects	No detects	No detects	No detects	No detects	No detects	No detects
Lab Contaminants	None	None	None	None	None	None	None
Calibration/Etc.	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported
RL Evaluation: Criteria/RL	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported
Other QC Data	None	None	None	None	None	None	None
Conclusion:	Data is usable as reported.	Data is usable as reported.	Slight low bias is possible for 1,2,4-trichlorobenzene and methyl ethyl ketone.	Data is usable as reported.			

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Sample Type/Location:	Source Removal Soil/Conc	Source Removal Soil/Conc	Waste Charac	Floor	Ceiling, Soil, Pipe	Floor	Floor
Lab/Lab Report ID:	ESS 1112463	ESS 1201044	ESS1202-00069	Phoenix GBD10647	Phoenix GBD12627	Phoenix GBD12964	Phoenix GBD12988
Report Date:	1/4/2012	1/11/2012	2/27/2012	12/23/2012	1/3/2013	1/3/2013	1/3/2013
Data Package Inspection	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package
Chain of Custody Evaluation	1 concrete sample for PCBs	9 soil samples for PCBs	2 water samples for 8260, pH, RCRA 8 metals, PCBs	4 Concrete samples for PCBs	4 Concrete samples for PCBs  8 Wipe, 8 Solid/Wipe, 11 Soil samples for PCBs		14 Solid samples for PCBs
Preservation and Holding Time	Analyzed within hold time.	Analyzed within hold time.	pH samples were run outside hold time of "immediately."	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.	Samples were received at a temperature above 6 degrees with cooling initiated due to the short period of time between sample collection and sample delivery. No bias is expected.
Site-specific MS/MSD	None	MS recovery is high for Aroclor 1016 and 1260.	None	None	None	None	None
Duplicate Samples	None	None	None	None	A14-S-4 (D): 420 mg/kg, 490 mg/kg. Good reproducibility. Orangeboring Pipe (D): 6100 mg/kg, 1300 mg/kg. Non-homogenous sample matrix. See GBD 25079 for duplicate results.	Good reproducibility. A5-F-5 (0.0-0.5) (D)	A10-F-15 (0.0-0.5) (D): 4 mg/kg, 4.4 mg/kg. Good reproducibility. See GBD 25079 for duplicate results.
Surrogates	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.
LCS/LCSD	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits
Method Blanks	No detects	No detects	No detects	No detects	No detects	No detects	No detects
Lab Contaminants	None	None	None	None	None	None	None
Calibration/Etc.	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported
RL Evaluation: Criteria/RL	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported
Other QC Data	None	None	None	None	None	None	None
Conclusion:	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.

#### NEW BRITAIN, CONNECTICUT

THE DRIVENING CONTROLLED										
Sample Type/Location:	Soil	Soil	Soil	Soil	Wall	Floor	Wall	Soil		
Lab/Lab Report ID:	Phoenix GBD12659	Phoenix GBD13002	Phoenix GBD13026	Phoenix GBD13050	Phoenix GBD13680	Phoenix GBD13690	Phoenix GBD13859	Phoenix GBD18412		
Report Date:	1/3/2013	1/3/2013	1/3/2013	1/4/2013	1/7/2013	1/7/2013	1/8/2013	1/16/2013		
Data Package Inspection	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package		
Chain of Custody Evaluation	20 Soil samples for PCBs, ETPH, SVOCs, VOCs	11 Soil samples for PCBs	11 Soil samples for PCBs	7 Soil samples for PCBs	10 Solid (paint, concrete) samples for PCBs	12 Solid samples for PCBs	3 Soil samples for ETPH, 2 solid samples for PCBs	1 Soil sample for PCBs		
Preservation and Holding Time	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.		
Site-specific MS/MSD	None	None	None	None	None	None	None	None		
Duplicate Samples	A14-S-3 (0.0-0.5) (D): 570 mg/kg, 710 mg/kg. Good reproducibility. See GBD 25079 for duplicate results.	None	None	None	A10-PW-4 (D): 53 mg/kg, 52 mg/kg. Good reproducibility. A10-PW-7 (D): 1.3 mg/kg, 1.2 mg/kg. Good reproducibility. See GBD 25079 for duplicate results.	A14-F-5 (0.0-0.5) (D): 20 mg/kg, 22 mg/kg. Good reproducibility. See GBD 25079 for duplicate results.	None	None		
Surrogates	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.		
LCS/LCSD	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits		
Method Blanks	No detects	No detects	No detects	No detects	No detects	No detects	No detects	No detects		
Lab Contaminants	None	None	None	None	None	None	None	None		
Calibration/Etc.	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported		
RL Evaluation: Criteria/RL	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported		
Other QC Data	None	None	None	None		None	None	None		
Conclusion:	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.		

#### NEW BRITAIN, CONNECTICUT

Sample Type/Location:	Wall	Soil	Soil	Floor	Floor	Soil, Wall	Soil	Orangeburg Pipe
Lab/Lab Report ID:	Phoenix GBD13859	Phoenix GBD12659	Phoenix GBD13050	Phoenix GBD13701	Phoenix GBD13725	Phoenix GBD25079	Phoenix GBD99800	Phoenix GBD99309
Report Date:	1/17/2013	1/18/2013	1/20/2013	1/21/2013	1/21/2013	2/7/2013	7/19/2013	7/3/2013
Data Package Inspection	RCP Data Package	RCP Data Package	RCP Data Package					
Chain of Custody Evaluation	1 Solid sample for PCBs, ETPH, SVOCs	1 Soil sample for PCBs, ETPH, SVOCs	4 Soil samples for PCBs	16 Solid samples for PCBs	9 Solid samples for PCBs	9 Soil samples for PCBs	1 Soil sample for ETPH	1 Pipe sample for PCBs
Preservation and Holding Time	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.					
Site-specific MS/MSD	None	None	None	None	None	None	None	None
Duplicate Samples	None	None	None	None	None	None	None	None
Surrogates	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	Surrogates were diluted out due to high PCB concentrations.					
LCS/LCSD	Within acceptance limits	Within acceptance limits	Within acceptance limits					
Method Blanks	No detects	No detects	No detects					
Lab Contaminants	None	None	None	None	None	None	None	None
Calibration/Etc.	No issues reported	No issues reported	No issues reported					
RL Evaluation: Criteria/RL	No issues reported	No issues reported	No issues reported					
Other QC Data	None	None	None	None	None	6 Duplicate samples associated with previously analyzed samples. Five within limits for reproducibility. Three not within limits, likely due to non- homogeneous sample matrix.	None	None
Conclusion:	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.					

### COMMERCIAL FOUNDRY COMPANII 326 SOUTH STREET NEW BRITAIN, CONNECTICUT

Sample Type/Location:	Concrete Floor	Concrete Floor	Concrete Floor	Soil Composite	Orangeburg Pipe	Soil	Soil	Soil	
Lab/Lab Report ID:	Phoenix GBD99568	Phoenix GBD99575	Phoenix GBD99578	Phoenix GBD99773	Phoenix GBD99775	Phoenix GBD99778	Phoenix GBD99780	Phoenix GBD99800	
Report Date:	7/4/2013	7/9/2013	7/23/2013	7/8/2013	7/18/2013	7/15/2013	7/8/2013	7/19/2013	
Data Package Inspection	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	
Chain of Custody Evaluation	4 Concrete samples for PCBs	3 Concrete samples for PCBs	5 Concrete samples for PCBs	2 Soil samples for PCBs	1 Pipe sample for PCBs	2 Soil samples for PCBs	8 Soil samples for ETPH	1 Soil sample for ETPH	
Preservation and Holding Time	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	
Site-specific MS/MSD	None	None	None	None	None	None	A3-S-15(0-2): ETPH recoveries were low.	None	
Duplicate Samples	None	A-14-F-37 (0-0.5) is a duplicate of A- 14-F-1 (BD10647). Results were not consistent, possibly due to sample matrix or non homogeneity, at ND and 5.2 mg/kg.	None	None	The sample was re-analyzed to confirm the result. Aroclor 1248 was detected at 14,000 mg/kg and 37,000 mg/kg. (Previous analysis in GBD99309 was 23,000 mg/kg.) Variation is likely due to sample matrix.	None	None	None	
Surrogates	All surrogate recoveries were within limits.	Surrogates were diluted out due to high PCB concentrations.	Surrogates were diluted out due to high PCB concentrations.	All surrogate recoveries were within limits.	Surrogates were diluted out due to high PCB concentrations.	Surrogates were diluted out due to high PCB concentrations.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	
LCS/LCSD	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	
Method Blanks	No detects	No detects	No detects	No detects	No detects	No detects	No detects	No detects	
Lab Contaminants	None	None	None	None	None	None	None	None	
Calibration/Etc.	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	
RL Evaluation: Criteria/RL	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	
Other QC Data	None	None	None	None	None	None	None	None	
Conclusion:	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	

### NEW BRITAIN, CONNECTICUT

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Sample Type/Location:	Soil Phoenix GBF00861	Soil Phoenix GBF00903	Soil Phoenix GBF00934	Paint Wall Phoenix GBF01274	Paint Wall Phoenix GBF01283	Paint Wall Phoenix GBF01291	Soil Phoenix GBF01298	Water Phoenix GBF03684
Lab/Lab Report ID: Report Date:	7/23/2013	7/15/2013	7/10/2013	7/11/2013	7/12/2013	7/12/2013	7/15/2013	7/16/2013
Data Package Inspection	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package	RCP Data Package
Chain of Custody Evaluation	2 Soil samples for PCBs	9 Soil samples for PCBs	3 Soil samples for PCBs	9 Solid samples for PCBs	8 Solid samples for PCBs	7 Solid samples for PCBs	3 Soil samples for ETPH	1 Water sample for PCBs
Preservation and Holding Time	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.	Preserved appropriately. Analyzed within hold time.			
Site-specific MS/MSD	A14-S-24 (0-0.25): Within limits	Ext-8 (0.5-0.75): Within limits	None	None	None	None	None	None
Duplicate Samples	None	None	None	None	None	A-12-PW-1 (20) was submitted as a blind duplicate for A-12-PW-1(10). Results: Total PCBs 5.4 and 5.2 mg/kg. Good reproducibility.	None	None
Surrogates	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.	Surrogates were diluted out due to high PCB concentrations.	Surrogates were diluted out due to high PCB concentrations.	Surrogates were diluted out due to high PCB concentrations.	All surrogate recoveries were within limits.	All surrogate recoveries were within limits.
LCS/LCSD	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits	Within acceptance limits
Method Blanks	No detects	No detects	No detects	No detects	No detects	No detects	No detects	No detects
Lab Contaminants	None	None	None	None	None	None	None	None
Calibration/Etc.	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported
RL Evaluation: Criteria/RL	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported	No issues reported
Other QC Data	None	None	None	None	None	None	None	None
Conclusion:	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.	Data is usable as reported.			